



4910-06-P

DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Part 236

[Docket No. FRA-2011-0028, Notice No. 3]

RIN 2130-AC27

Positive Train Control Systems (RRR)

AGENCY: Federal Railroad Administration (FRA), Department of Transportation (DOT).

ACTION: Final Rule.

SUMMARY: FRA amends the regulations implementing a provision of the Rail Safety Improvement Act of 2008 that requires certain passenger and freight railroads to install positive train control (PTC) systems. This final rule removes regulatory provisions that require railroads to either conduct further analyses or meet certain risk-based criteria in order to avoid PTC system implementation on track segments that do not transport poison- or toxic-by-inhalation hazardous (PIH) materials traffic and are not used for intercity or commuter rail passenger transportation as of December 31, 2015.

DATES: This final rule is effective [INSERT DATE 60 DAYS FROM DATE OF PUBLICATION]. Petitions for reconsideration must be received on or before [INSERT DATE 60 DAYS FROM DATE OF PUBLICATION]. Petitions for reconsideration will be posted in the docket for this proceeding. Comments on any submitted petition for reconsideration must be received on or before [INSERT DATE 105 DAYS FROM DATE OF PUBLICATION].

ADDRESSES: Petitions for reconsideration and comments on petitions for reconsideration:

Any petitions for reconsideration or comments on petitions for reconsideration related to Docket No. FRA-2011-0028, may be submitted by any of the following methods:

- Website: The Federal eRulemaking Portal, www.regulations.gov. Follow the website's online instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE, W12-140, Washington, DC 20590.
- Hand Delivery: Room W12-140 on the Ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. Note that all petitions received will be posted without change to www.regulations.gov including any personal information. Please see the Privacy Act heading in the "Supplementary Information" section of this document for Privacy Act information related to any submitted petitions, comments, or materials.

Docket: For access to the docket to read background documents or comments received, go to www.regulations.gov or to Room W12-140 on the Ground level of the West Building, 1200 New Jersey Avenue SE, Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Thomas McFarlin, Office of Safety Assurance and Compliance, Staff Director, Signal & Train Control Division, Federal Railroad Administration, Mail Stop 25, West Building 3rd Floor West, Room W35-332, 1200 New Jersey

Avenue, SE., Washington, DC 20590 (telephone: 202-493-6203); or Jason Schlosberg, Trial Attorney, Office of Chief Counsel, RCC-10, Mail Stop 10, West Building 3rd Floor, Room W31-207, 1200 New Jersey Avenue, SE., Washington, DC 20590 (telephone: 202-493-6032).

SUPPLEMENTARY INFORMATION:

FRA is issuing this final rule to amend the regulatory requirements contained in 49 CFR part 236, subpart I, related to a railroad's ability to remove track segments from the necessity of implementing PTC systems as mandated by Section 104 of the Railroad Safety Improvement Act of 2008, Pub. L. 110-432, 122 Stat. 4854 (Oct. 16, 2008) (codified at 49 U.S.C. 20157) (hereinafter "RSIA") based on the track segments not carrying PIH traffic as of December 31, 2015.

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I. Executive Summary

For years, FRA has supported the implementation of positive train control (PTC) systems, forecasting substantial benefits of advanced train control technology in supporting a variety of business and safety purposes. However, FRA repetitively noted that an immediate regulatory mandate for PTC system implementation could not be justified based upon normal cost-benefit principals relying on direct safety benefits. In 2005, FRA promulgated regulations providing for the voluntary implementation of processor-based signal and train control systems. See 70 FR 11,052 (Mar. 7, 2005) (codified at 49 CFR part 236, subpart H).

As a consequence of the number and severity of certain very public accidents, coupled with a series of other less publicized accidents, Congress passed RSIA mandating the implementation of PTC systems on lines meeting certain thresholds. RSIA requires PTC system implementation on all Class I railroad lines that carry PIH materials and 5 million gross tons or more of annual traffic, and on any railroad's main line tracks over which intercity or commuter rail passenger train service is regularly provided. In addition, RSIA provided FRA with the authority to require PTC system implementation on any other line.

In accordance with its statutory authority, FRA's subsequent final rule, issued January 15, 2010, and amended on September 27, 2010, potentially required PTC system implementation on certain track segments that carried PIH traffic and 5 million gross tons or more of annual

traffic in 2008 but that will not, as of December 31, 2015, carry PIH traffic, and will not be used for intercity or commuter rail passenger transportation that otherwise requires PTC installation under the rule. Per the regulation, the determination would be based upon whether the subject track segment would pass what has been called the alternative route analysis and the residual risk analysis (the “two qualifying tests”), which are described below.

Upon issuance of the PTC final rule, the Association of American Railroads (AAR) filed suit in the U.S. Court of Appeals for the District of Columbia Circuit challenging the two qualifying tests provisions of the final rule. After the parties filed their briefs, they executed a settlement agreement (Settlement Agreement). In the Settlement Agreement, FRA agreed to issue a notice of proposed rulemaking (NPRM) proposing to amend the PTC rule to eliminate the two qualifying tests and to also issue a separate NPRM that will address the issues of how to handle en route failures of PTC-equipped trains, circumstances under which a signal system may be removed after PTC system installation, and whether yard movements and certain other train movements should qualify for a de minimis exception to the PTC rule. The Settlement Agreement further provided that FRA would consider public comments on the NPRMs in determining whether to amend the PTC rule. The Settlement Agreement also provides that upon conclusion of the current rulemaking, the parties will determine whether to file a joint motion to dismiss with prejudice or advise the Court that they are unable to resolve all issues involved in the court suit.

Consistent with the Settlement Agreement, FRA issued an NPRM in this proceeding on August 24, 2011, proposing to eliminate the two qualifying tests. Having considered the public comments on the NPRM, FRA is promulgating this final rule eliminating the two qualifying

tests. FRA is in the process of developing the second NPRM which will address other possible amendments to the PTC rule.

For the first 20-years of this final rule, the estimated quantified benefits to the rail industry due to the regulatory relief total approximately \$620 million discounted at 7 percent and \$818 million discounted at 3 percent. Substantial cost savings will accrue largely from not installing PTC system wayside components along approximately 10,000 miles of track. Although these rail lines would forego some risk reduction, the reductions will likely be relatively small since these lines pose a much lower risk of accidents because they generally do not carry passenger trains or PIH materials, and generally have lower accident exposure. The analysis shows that if the assumptions are correct, the savings of the proposed action far outweigh the cost. The following table presents the expected quantified benefits:

Benefits (20-year, discounted)		
Costs Avoided:	7% Discount	3% Discount
Reduced Mitigation Costs, Including Maintenance	\$91,793,822	\$121,119,324
Reduced Wayside Costs, Including Maintenance	\$515,695,631	\$680,445,643
Reduced Locomotive Costs, Including Maintenance	\$12,479,834	\$16,466,785
Total Benefits	\$619,969,287	\$818,031,752

For the same 20-year period, the estimated quantified cost totals \$26.7 million discounted at 7 percent and \$39.3 million discounted at 3 percent. The costs associated with the regulatory relief result from accidents that will not be prevented due to the affected track segments not being equipped with a PTC system. A substantial part of the accident reduction that FRA expects from PTC systems required under prior rules comes from reducing high-consequence accidents involving passenger trains or the release of PIH materials. FRA believes that the lines

impacted by this final rule pose significantly less risk because they generally do not carry passenger trains or PIH materials and generally have lower accident exposure. The following tables present the expected total costs of the final rule as well as the breakdown of the costs by element:

Costs (20-year, discounted)		
Foregone Reductions in:	7% Discount	3% Discount
Fatality Prevention	\$11,453,106	\$16,860,327
Injury Prevention	\$4,254,484	\$6,263,104
Train Delay	\$117,793	\$173,406
Property Damage	\$10,163,835	\$14,962,367
Equipment Cleanup	\$143,273	\$210,915
Environmental Cleanup	\$430,995	\$634,475
Evacuations	\$138,780	\$204,301
Total Costs	\$26,702,267	\$39,308,896

FRA has also performed a sensitivity analysis for a high case (14,000 miles), expected case (10,000 miles), and low case (7,000 miles).

The net amounts for each case, subtracting the costs from the benefits, provide the following results:

Net Societal Benefits	7% Discount	3% Discount
Expected Case (10,000 miles)	\$593,267,020	\$778,722,856
High Case (14,000 miles)	\$793,856,299	\$1,041,764,269
Low Case (7,000 miles)	\$442,825,061	\$581,441,797

Further, the benefit-cost ratios under the scenarios analyzed range between 20:1 and 25:1.

Benefit-Cost Ratio	7% Discount	3% Discount
Expected Case	23.22	20.81
High Case	22.24	19.93
Low Case	24.69	22.13

II. Background

A. Regulatory History

As a consequence of the number and severity of certain widely publicized accidents, coupled with a series of other accidents receiving less media attention, Congress passed RSIA, mandating implementation of PTC systems by December 31, 2015, on lines meeting certain specified criteria, and giving FRA authority to require the PTC system implementation on other lines. 75 FR 2598 (Jan. 15, 2010). Under RSIA, such PTC system implementation must be completed by each Class I railroad carrier and each entity providing regularly scheduled intercity or commuter rail passenger transportation on:

- (A) its main line over which intercity rail passenger transportation or commuter rail passenger transportation, as defined in section 24102, is regularly provided;
- (B) its main line over which PIH hazardous materials, as defined in parts 171.8, 173.115, and 173.132 of title 49, Code of Federal Regulations, are transported; and
- (C) such other tracks as the Secretary may prescribe by regulation or order.

49 U.S.C. 20157(a)(1). The statute further defined “main line” to mean:

a segment or route of railroad tracks over which 5,000,000 or more gross tons of railroad traffic is transported annually, except that—

- (A) the Secretary may, through regulations under subsection (g), designate additional tracks as main line as appropriate for this section; and
- (B) for intercity rail passenger transportation or commuter rail passenger transportation routes or segments over which limited or no freight railroad operations occur, the Secretary shall define the term “main line” by regulation.

49 U.S.C. 20157(i)(2). To effectuate this goal, RSIA required the railroads to submit for FRA approval a PTC Implementation Plan (PTCIP) within 18 months (i.e., by April 16, 2010).

The Secretary has delegated his authority under § 20157 to the FRA Administrator. See 49 CFR § 1.49(oo). Consistent with the statutory mandate of § 20157, FRA published a final rule with a request for further comments on January 15, 2010, which established new regulations codified primarily in subpart I to 49 CFR part 236 (the “PTC rule”). Subsequently, FRA received a number of petitions for reconsideration to the final rule and a number of comments responding to the request for further comments. In a letter dated July 8, 2010, FRA denied all of the petitions for reconsideration. On September 27, 2010, FRA issued a new final rule with clarifying amendments to the PTC rule.

Under the current regulations applicable to the existing railroads, each PTCIP must have included the sequence and schedule in which track segments required to be equipped with a PTC system will be so equipped and the basis for those decisions. See 49 CFR § 236.1011. This list of track segments must have included all track segments that fit the statutory criteria in calendar year 2008. See 49 CFR §§ 236.1005(b)(1) and (b)(2).

While the statutory PTC system implementation deadline is December 31, 2015, FRA recognized a need for a starting point in time to determine where such implementation must occur. The final rule indicates that such a starting baseline should be based on the facts and data known in calendar year (CY) 2008 (the “2008 baseline”). FRA determined, and continues to believe, that using CY 2009 data would have been difficult given the proximity to the PTCIP submission deadline and the notably atypical traffic levels caused by the down turn in the economy.

Although each railroad's initial PTCIP includes a future PTC system implementation route map reflecting 2008 data, FRA recognized that PIH materials traffic levels and routings could change in the period between the end of 2008 and the start of 2016. Accordingly, in the event of changed circumstances, the PTC rule provides railroads with the option to file a request for amendment (RFA) of its PTCIP to not equip a track segment where the railroad was initially, but may no longer be, required to implement a PTC system. If a particular track segment included in a PTCIP no longer carries PIH materials traffic and applicable passenger traffic by the statutory implementation deadline, and its PTC system implementation is scheduled, but not yet effectuated, then the host railroad might avoid actual PTC system implementation by filing a supported RFA for FRA approval. Each such RFA must be supported with the data defined under §§ 236.1005(b)(2) and (b)(4)(i), and satisfy the two qualifying tests that were promulgated under FRA's statutory authority to require PTC system implementation to be installed on lines in addition to those required to be equipped by RSIA. If a track segment fails either of these tests, FRA would deny the request, thus requiring PTC system implementation on the track segment.

The first test, proverbially known as the "alternative route analysis test," was initially codified at § 236.1005(b)(4)(i)(A) and subsequently moved to a new § 236.1020. See 75 FR 59,108 (Sept. 27, 2010). Under this test, the railroad must establish that current or prospective rerouting of PIH materials traffic to one or more alternative track segments is justified. If a railroad reroutes all PIH materials off of a track segment requiring PTC system implementation under the 2008 baseline, and onto a new line, PTC system implementation on the initial line may not be required if the new line would have substantially the same overall safety and security risk as the initial line, assuming PTC system implementation on both lines. If the initial track segment, despite the elimination of all PIH materials traffic, is determined to pose higher overall

safety and security risks under this analysis, then a PTC system must still be installed on that initial track segment. PTC system implementation may also be required on the new line if it meets the 5 million gross ton of annual traffic threshold and does not qualify under the de minimis exception of the rule.

The second test that the railroad must satisfy in order to avoid having to install a PTC system on a track segment requiring implementation under the 2008 baseline is the so-called “residual risk test.” Under this test, the railroad must show that, without a PTC system, the remaining risk on the track segment—pertaining to events that can be prevented or mitigated in severity by a PTC system—is less than the national average equivalent risk per route mile on track segments required to be equipped with PTC systems due to statutory reasons other than the presence of passenger traffic. Even lines that cease carrying PIH materials traffic can still pose significant safety risks associated with other traffic on the lines. When FRA issued its PTC rule amendments on September 27, 2010, FRA indicated that it was delaying the effective date of 49 CFR § 236.1005(b)(4)(i)(A)(2)(iii), as revised under § 236.1020, pending the completion of a separate rulemaking to establish how residual risk is to be determined. While FRA has attempted to determine a suitable methodology to determine such residual risk, no rulemaking proceeding on this test has yet occurred.

B. Litigation and Congressional Hearings

After FRA issued its PTC final rule on January 15, 2010, and denied reconsideration on July 8, 2010, AAR filed a petition for review of the rule with the U.S. Court of Appeals for the District of Columbia Circuit. Once FRA issued its PTC final rule amendments, AAR filed another petition for review of those amendments on October 5, 2010. The court consolidated those two petitions on October 22, 2010 (collectively, “Petition for Review”). In its brief, AAR

challenged FRA's determination to use 2008 as the baseline year, arguing that it rests on a fundamental legal error and was arbitrary and capricious.

FRA and AAR entered into the Settlement Agreement on March 2, 2011. The terms and conditions of the Settlement Agreement included the joint filing of a motion to hold the Petition for Review in abeyance pending the completion of this rulemaking. That motion was filed on March 2, 2011, and was granted by the court on March 3, 2011. The Settlement Agreement provides that FRA will issue two NPRMs. The first NPRM, published in the Federal Register on August 24, 2011, and culminating with this final rule, addresses the elimination of the two qualifying tests. The Settlement Agreement provides that upon the completion of this rulemaking proceeding, the parties will determine whether to file a joint motion to dismiss the lawsuit in its entirety. As previously noted, the Settlement Agreement also provides that FRA will issue a separate NPRM that will address other possible changes to the PTC rule; that NPRM is under development.

On March 17, 2011, FRA and AAR testified before the Subcommittee on Railroads, Pipelines, and Hazardous Materials, Committee on Transportation and Infrastructure, U.S. House of Representatives. In addition to reporting on the Settlement Agreement, FRA's testimony discussed PTC system implementation planning and progress made thus far and highlighted the various ways that FRA has assisted the industry in meeting the statutory and regulatory goals. In particular, FRA has supported PTC system implementation by developing and approving certain implementation exceptions, providing technical assistance, and granting financial assistance.

During its congressional testimony, made jointly with Norfolk Southern Railway (NS), AAR asserted that, "If unchanged, the 2008 base-year provision means railroads would have to spend more than \$500 million in the next few years to deploy PTC systems on more than 10,000

miles of rail lines on which neither passenger nor TIH materials will be moving in 2015.”¹ FRA continues to understand AAR to assume that these 10,000 miles would still require PTC system implementation because they would not be able to pass the alternative route analysis and residual risk analysis tests. However, upon its own analysis, FRA assumes that 50 percent of the 10,000 miles would be able to pass both tests with the implementation of mitigation measures. In the NPRM to this proceeding, FRA sought comment on this assumption.

Under the regulatory impact analysis (RIA) that accompanied the original PTC final rule, FRA estimated that the railroads would need to implement PTC systems on approximately 70,000 miles of track. FRA estimated that PTC system implementation could be avoided on 3,204 miles of those 70,000 miles of track because PIH materials traffic will have ceased by 2015 and the subject track segments would pass the alternative route analysis and residual risk analysis tests. During the earlier rulemakings, no entity, including AAR or NS, challenged or otherwise commented on these conclusions.

FRA also estimated that PTC system implementation could be avoided on 304 miles of track because gross tonnage will fall below 5 million gross tons per year, or passenger service would end so that neither of the two tests above would apply. Between the two categories, FRA estimated that railroads could exclude more than 3,500 miles. Assuming that the 3,500 miles represents about 50% of those tracks where PIH materials traffic will have ceased, FRA was implicitly estimating that there would be about 7,000 miles of track where PIH materials traffic

¹ Hearing Before the Subcommittee on Railroads, Pipelines, and Hazardous Materials of the Transportation and Infrastructure Committee, U.S. House of Representatives, 112th Cong. (2011) (Joint statement of Edward R. Hamberger, President and Chief Executive Officer of the AAR, and Mark D. Manion, Executive Vice President and Chief Operating Officer of the Norfolk Southern Railway, on behalf of the AAR’s member railroads) [hereinafter AAR CONGRESSIONAL TESTIMONY].

will have ceased. The AAR and its members appear to have been more effective in the future reduction of PIH materials traffic than FRA had initially estimated based on AAR's congressional testimony and subsequent submissions to FRA. In its RIA associated with the NPRM in this proceeding, FRA estimated that PIH materials traffic would cease on 10,000 miles of track on which the installation of PTC systems would have been required had the traffic not ceased. FRA considered cases where 7,000 miles, 10,000 miles and, for sensitivity, 14,000 miles of track might be excluded from PTC requirements because of changes in PIH materials traffic. As FRA was completing its analysis of the proposal, AAR submitted data that indicated its member railroads believe that they can cease PIH materials traffic on 11,128 miles of track prior to December 31, 2015, of which 9,566 miles have no passenger traffic. In analyzing the final rule, FRA continues to use the cases where 7,000 miles, 10,000 miles, and 14,000 miles of track might be excluded from PTC implementation requirements due to PIH traffic changes, because those values encompass the ranges submitted by AAR. Some of the passenger traffic miles identified by AAR may later qualify for a separate exclusion from the requirement to install a PTC system. For more discussion of those miles from which PIH traffic is removed, but on which passenger traffic remains, see FRA's Regulatory Impact Assessment, in this rulemaking docket.

III. Public Hearing, Comments, and FRA Response

After publication of the NPRM to this proceeding on August 24, 2011, which initially provided a 60-day comment period to end on October 24, 2011, the Chlorine Institute filed a request for a hearing "to allow for a complete discussion and understanding of the many issues and concerns that would result from adoption of the Proposed Rule that would have the effect of reducing the rail routes available to shippers and receivers of chlorine and the other Toxic-by-

Inhalation products that are so necessary to the health, safety and economy of the Nation.” On October 14, 2011, FRA published in the Federal Register a notice of public hearing and extension of the comment period to November 25, 2011. See 76 FR 63,899 (Oct. 14, 2011).

In accordance with that notice, FRA held a public hearing on November 10, 2011, in Washington, DC. The following individuals representing the identified entities testified at the hearing: Frank Chirumbole, President of Olin Chlor Alkali Products, Olin Corporation (“Olin”); Frank Reiner, President, The Chlorine Institute (CI); Thomas Schick, American Chemistry Council (ACC); Dr. Howard Kaplan, US Magnesium, LLC (“US Magnesium”); and Michael J. Rush, AAR. By November 25, 2011, FRA received comments from AAR; ACC, CI, and the Fertilizer Institute (TFI) (collectively, the “Trade Associations”); the National Railroad Passenger Corporation (Amtrak); the Brotherhood of Maintenance of Way Employees Division (BMWED/IBT) and Brotherhood of Railroad Signalmen (BRS) (collectively, the “Labor Organizations”); E. I. du Pont de Nemours and Company (“DuPont”); and PPG Industries, Inc. (“PPG”).

The Trade Associations’ testimony and comments rely primarily on reports developed by L.E. Peabody & Associates, Inc. (“Peabody”), a firm specializing in solving economic, financial, marketing and transportation problems. Peabody developed its reports (“Peabody Reports”) on behalf of CI, which also invited Peabody to testify at the hearing regarding its own evaluation of the costs and benefits associated with PTC system implementation and on the instant proposal’s potential economic harm to the PIH materials shippers.

At the hearing, the ACC supported FRA’s effort to minimize unnecessary regulatory burdens and recognized that certain operational factors may affect some rail lines by no longer

requiring PTC system installation. ACC asserts that these implementation changes must not prevent chemical manufacturers from shipping their products.

CI—a 200 member trade association comprised primarily of producers, repackagers and users of chlorine, and suppliers to the chlor-alkali industry—testified at the hearing that, “Since many of the most significant rail accidents have been the result of operational errors,” it has long advocated the adoption of new technologies, including PTC, to improve rail operational safety. According to the CI’s testimony, “While the statute only requires positive train control on TIH and passenger mainlines, all traffic on the equipped lines will derive the benefits of safer operation and improved operational efficiency.” In their jointly filed comments, the Trade Associations representing shippers and receivers of PIH materials strongly support FRA’s efforts to enhance rail safety, including the deployment of new technologies like PTC.

The remainder of this section will discuss the various commenters’ concerns with FRA’s proposal.

A. Routing Concerns and Shipper Participation

The Labor Organizations assert that by removing the two qualifying tests from the PTC rule, railroads may consequently be allowed to avoid PTC system implementation, hampering FRA’s ability to identify routes that could be of higher risk. If the alternative route analysis test is eliminated, the Labor Organizations believe that PIH materials traffic may be rerouted to Class II railroad lines, which may have poorer track conditions, older rolling stock, and a less robust or no signal system, thus increasing the total public risk. The Labor Organizations believe that FRA should establish a mechanism to assess the risks related to the rerouting of PIH materials traffic onto lines that will not require PTC system implementation, and that such rerouting should be subject to FRA approval.

The routes railroads use to provide PIH materials transportation is governed by the routing regulations of the Pipeline and Hazardous Materials Safety Administration (PHMSA) at 49 CFR § 172.820. Under the PHMSA regulations, a railroad carrier is required to: compile annual data on shipments of PIH materials and other security sensitive materials; use the data to analyze safety and security risks along rail routes used by the carrier to transport those materials and practicable alternative routes over which the carrier has authority to operate; seek information from state, local and tribal officials regarding security risks to high-consequence targets along or in proximity to the routes; consider mitigation measures to reduce safety and security risk; and select and use the practicable routes that pose the least overall safety and security risk. FRA enforces PHMSA's regulation (49 CFR part 209, subpart F). The routing of PIH materials is also impacted by the security regulations of the Transportation Security Administration at 49 CFR part 1580, which requires chain of custody requirements to ensure a positive and secure exchange of PIH materials transported by rail.

FRA does not agree with the Labor Organizations' contention that PIH materials traffic will be rerouted from Class I railroads to Class II railroads. FRA is not aware of Class I railroads attempting such rerouting; rather, consistent with the PHMSA regulations, the removal of PIH materials from certain routes is the result of Class I railroads rerouting the traffic to other lines that they operate because those other lines pose the least overall safety and security risk for the movement of this traffic.

In its filed comments, the Labor Organizations also request clarification of some of FRA's statements. For instance, in the NPRM, FRA states, "AAR submitted data that indicates its member railroads believe that they can cease PIH materials traffic on 11,128 miles of track of which 9,566 miles have no passenger traffic. Some of the passenger traffic miles may later

qualify for exclusion from the system on which PTC is required.” 76 FR 52,922 (Aug. 24, 2011). The Labor Organizations assume, but are not completely confident, that the reference to “exclusion from the system” relates to the possibility that some of the passenger train operations over the remaining 1,562 miles of track might be eligible for a de minimis exception. The Labor Organizations request that FRA clarify whether passenger train operations exceeding the de minimis exclusion will require PTC system installation regardless of the absence of PIH material on the line.

With respect to the Labor Organizations’ request for clarification, the existing PTC rule provides for exceptions to the requirement to install PTC systems for certain passenger train operations, as provided for in 49 CFR § 236.1019. In the NPRM, FRA explained that AAR member railroads believe they can cease PIH materials traffic on 11,128 miles of track, over which 9,566 miles have no passenger traffic. The statement highlighted by the Labor Organizations means only that, of the remaining 1,562 miles of track that would now only require PTC systems as a result of passenger traffic, some of those miles of track might qualify for one of the passenger-specific exceptions and therefore be excluded from the PTC requirement entirely. The de minimis exception would not apply here, since there is passenger traffic on the line.

CI expressed concerns with the lack of shipper participation in PTC system implementation and proposes that a system such as the STB line abandonment process be implemented if a line is proposed to be dropped from the coverage plan. The Trade Associations echoed this in their comments, indicating that they would like shippers to be part of the process in determining where PTC systems should be implemented. They note that there are no express provisions allowing PIH materials shippers or receivers to file PTCIP requests for amendments

or requiring notification that a railroad seeks to add or remove lines from its PTCIP. The Trade Associations believe that, without shipper input, FRA may inadvertently create PIH materials transport restrictions or infeasibility. The Trade Associations suggest that FRA should establish a process that would provide PIH materials shippers and consignees an opportunity to petition the agency to require additional PTC lines to accommodate new or expanded PIH materials-related business ventures.

RSIA requires that only certain railroads submit a PTCIP. Since each railroad is legally responsible for implementing PTC systems on its own lines, FRA believes this makes sense. While FRA also requires a joint PTCIP filing where a tenant railroad would have been required to install a PTC system if the host railroad had not otherwise been required to do so, this exception exists primarily to ensure PTC system interoperability. Otherwise, FRA has not provided opportunities for parties other than the host railroad to file a PTCIP. For the same reason, FRA will not provide opportunities for third parties to file requests for amendments. To do so would create confusion and potentially impose additional burdens on the railroad. In any event, third parties do have an opportunity to express their views on the plans submitted pursuant to the PTC rule. 49 CFR § 236.1011(e) continues to provide that, upon receipt of a PTCIP, NPI, PTCDP, or PTCSP, FRA will post on its public website a notice of receipt and reference to the public docket in which a copy of the filing has been placed. By extension, FRA also considers this paragraph applicable to any RFA that seeks to modify either of those plans and has endeavored to ensure that all plans and their RFAs are placed in their respective public dockets. FRA will consider any public comment on these documents to the extent practicable within the time allowed by law and without delaying PTC system implementation.

PPG—an international diversified chemical manufacturer that receives chlorine by rail in the U.S.—expressed concern over the lack of transparency regarding the rail lines that would be implicated by the proposed rule, denying it the opportunity to effectively evaluate the impact of the proposal on its existing and future business plans. Moreover, PPG states that the existing PTC rule does not provide any audit or review process by which FRA may verify a railroad’s traffic assertions or any appeals process by which a shipper can contest a railroad’s decision not to install a PTC system on a particular rail line. PPG also states that if a PTC system is not installed on a particular line before 2016, then a railroad could attempt to condition any future service for PIH commodities at very high rates, stifling the shipper’s business and impeding the national economy.

The Trade Associations are also concerned with the availability of routes. According to CI, the lack of shipper participation could either restrict chlorine transportation by rail or render it unfeasible between some origins and destinations, ultimately restricting chlorine commerce and availability. If FRA were to eliminate the two qualifying tests, Peabody believes that FRA would allow the railroads to determine which track segments will be equipped with PTC systems without regulatory oversight regarding the determination of the level of safety and security on the subject segment. Peabody also expresses concerns that FRA, when making the proposal, considered the impact on the railroads, but not the shippers or the public.

The Trade Associations believe that elimination of the two qualifying tests would, produce an opportunity for the railroads to unilaterally, arbitrarily, and without regulatory oversight, determine where PTC systems must be installed and reduce the transportation of PIH materials by rail. According to the Trade Associations, “The opportunity cannot be examined in a vacuum but must be evaluated through the prism of the railroads’ other actions to greatly

reduce the common carrier obligation.” Although FRA will continue to approve any requests to modify a railroad’s PTCIP, the Trade Associations perceive that such approval will be automatic and based solely on the railroad’s own traffic projections and without consideration of the shippers’ PIH market projections.

Dupont, a member of CI and ACC, provided additional comments. DuPont is concerned that, by removing the two qualifying tests, rail carriers would be granted the unlimited right and an incentive to refuse to provide service just by choosing routes without PTC systems despite any STB action. According to DuPont, it has experienced rail carriers moving PIH materials traffic onto inefficient routes and shifting the resulting costs elsewhere. DuPont states that by allowing the railroads to unilaterally deny the most direct route, the railroads will be allowed to violate their fundamental common carrier obligations.

Accordingly, DuPont asserts that FRA should maintain the two qualifying tests, which allow each railroad to amend its PTCIP when the railroad is able to meet certain analyses and risk assessments. DuPont also suggests that FRA expand the existing PTC rule by promulgating a self-implementation regulation providing each shipper with the power to direct its rail carrier to transport its goods on lines where PTC systems would otherwise be required and which are not so equipped and providing each railroad the ability to self-certify a risk assessment for each such line.

Olin also provided hearing testimony in favor of not eliminating the two qualifying tests. In particular, Olin is concerned that the proposed amendments will allow railroads to significantly restrict PIH shipments without shipper input or adequate FRA oversight. Olin states that the elimination of the two qualifying tests would effectively grant rail carriers carte blanche to determine PTC system implementation locations, which could ultimately allow rail

carriers to dictate and limit efficient PIH shipments and would potentially result in increased transit times, longer shipping distances, limited customer access, and restriction to overall commerce and additional shipping costs. According to Olin, “Allowing rail carriers to potentially limit the shipment of TIH without the protections of the ‘alternative route analysis test’ and the ‘residual risk test,’ or another appropriate process, would not only pose risks to shippers, it would also likely contradict the federal common carrier obligation which has been a keystone of U.S. rail policy for more than a century” by opening “a back door around the common carrier obligations for rail carriers.” Olin also expressed concerns that the overall cost of PTC system implementation will be disproportionately placed on PIH shippers and that there are no provisions to examine shipper impact or address timely action for future PIH required rail lines.

PPG also provided comments directly relating to the purposes of the two qualifying tests. According to PPG, FRA took a crucial and important step in the original PTC rule when it required use of 2008 as the baseline traffic year to determine which rail lines would require PTC system implementation. PPG states that, “By using a historical year as the baseline, FRA largely eliminated the possibility for railroads to manipulate their traffic statistics in light of the looming PTC requirement.” By removing the two qualifying tests, PPG is concerned that this possibility remains. More specifically, without the two qualifying tests, PPG fears that railroads could dissuade PIH materials shipments by providing substandard service or by charging excessive transportation rates.

As an initial matter, questions relating to the quality of service provided PIH shippers and rates charged by railroad carriers for the movement of PIH materials are outside the scope of FRA’s authority and properly lie with the STB.

Each of the arguments made by the Trade Associations and the other railroad shippers rest on the premise that, by rerouting PIH materials traffic to avoid the installation of PTC systems, railroad carriers will somehow be able to “lock in” certain routes as the only routes available to carry PIH materials after the 2015 deadline. Ultimately, however, this premise is incorrect. As discussed in more detail below, FRA does not view the PTC mandate as limiting the common carrier obligation of railroad carriers as enforced by STB, and consequently does not view a smaller map of PTC-equipped line segments as restricting the availability of rail transportation for PIH materials in the future. FRA recognizes that equipping fewer line segments with PTC systems before 2016 will increase the probability that a future PIH materials shipment would eventually require access to an unequipped line in order to reach its destination; however, such concerns will exist with any requirement to install a PTC system that does not cover all line segments. The arguments of the Trade Associations and other railroad shippers are over-inclusive, insofar as they lead to the conclusion that FRA should simply require PTC systems to be installed on as many line segments as possible. However, reducing the probability of future controversies over future installation of PTC systems is insufficient justification for potentially using the two qualifying tests as a means to require additional PTC systems implementation prior to the 2015 deadline.

FRA also rejects the premise that railroads will have an uninhibited means of rerouting PIH material traffic without meaningful oversight. As previously discussed, the rail routing of PIH materials is governed by the PHMSA routing rule. In their comments, the Trade Associations view the rail routing rule as satisfying the needs from a shipper perspective in three ways:

- “1. Routing changes are to be based on 27 different risk-based factors and not solely on any one factor, such as cost, distance or time;
2. No matter what routing changes are made, existing origin-destination pairs are still accommodated and TIH traffic is not eliminated;
3. There is nothing in the rule that indicates that future needs for TIH traffic would be limited or avoided.

Despite potential increases in shipment cost or time, the shippers’ need to transport TIH materials is essentially met.”

AAR generally supports elimination of the two qualifying tests, asserting that the two tests would require PTC systems to be installed on an estimated 10,000 miles more than that required by the RSIA, at costs which substantially outweigh the safety benefits. The AAR did, however, suggest that FRA adopt slightly different regulatory language than that proposed in the NPRM; these suggested changes are discussed in the section-by-section analysis. The AAR responded to the shippers’ concerns by noting that the routing of PIH materials is governed by the PHMSA rail routing rule, and that nothing in FRA’s proposed rule changes, prevents, or in any manner affects, the transportation by rail of PIH materials from origin to destination.

FRA agrees with AAR that the rerouting of PIH materials traffic is properly constrained by the PHMSA rail routing rule. FRA also agrees with AAR that PIH materials traffic will continue to move on rail lines that do not have PTC systems consistent with the requirements of 49 CFR § 236.1005(b)(3), and that the elimination of the two qualifying tests does not affect the railroads’ common carrier obligation with respect to the transportation of PIH materials. Finally, removal of the two qualifying tests will not preclude FRA’s ability or discretion under 49 U.S.C.

§ 20502 to require PTC system implementation on additional lines in the future based on risk or other relevant factors.

B. Common Carrier Obligations

According to the Trade Associations, although FRA has made it clear in the past that it does not intend for matters within its jurisdiction to trump the railroads' common carrier obligation, FRA's determinations affect the location of PTC system implementation and, thus, where, when, how, and if PIH materials are to be moved.

Accordingly, the Trade Associations are concerned that the railroads will use PTC system implementation as a means to limit their common carrier obligations with respect to PIH materials. More specifically, at the hearing, CI expressed that, "We're concerned that FRA's [PTC] rule will be used to attempt to alter that common carrier obligation, which we fully understand is under the STB jurisdiction." While the Trade Associations recognize that it is not FRA's responsibility to enforce the railroads' common carrier obligation to transport PIH materials, they assert that PTC system implementation must not erode that obligation. The Trade Associations provide examples where FRA has considered the common carrier obligation in the past. For instance, in 2008, the Department testified before the STB, stating:

[R]ailroads have a common carrier obligation to transport hazardous materials and cannot refuse to provide service merely because to do so would be inconvenient or unprofitable. While the railroads have expressed concern over this obligation, particularly with respect to their potential liability exposure arising from train accidents involving the release of poisonous by inhalation hazard or toxic inhalation hazard (referred to as PIH or TIH) materials, DOT believes that there is no reason to change this common carrier obligation."

Testimony of Clifford Eby, Deputy Federal Railroad Administrator, Common Carrier Obligation of Railroads, STB Ex Parte No. 677 (Sub-No. 1) (July 22, 2008).

The Trade Associations also state that the Department is on record as saying that railroads would be violating the common carrier obligation if they attempted, through their interchange rules, to prevent the movement of hazardous materials through the application of tank car specifications different from those duly considered and approved by the Department.²

Moreover, the Trade Associations request that FRA confirm its interpretation of 49 CFR § 236.1005(b)(3)(ii), which states: “If PIH traffic is carried on a track segment as a result of a request for rail service or rerouting warranted under part 172 of this title, and if the line carries in excess of 5 million gross tons of rail traffic as determined under this paragraph, a PTCIP or its amendment is required.” The Trade Associations believe that this language, consistent with the common carrier obligation, implies that a rail carrier may not deny a shipper’s request to transport PIH materials solely on the grounds that a PTC system is not installed on any line segment necessary to complete the requested transportation. The Trade Associations believe that this regulation requires the railroad to accept the PIH materials traffic for transportation consistent with its common carrier obligation, amend its PTCIP, and equip the necessary track with a PTC system within 24 months, pursuant to 49 CFR § 236.1005(b)(3)(iii).

PPG also believes that FRA must be mindful of the interplay between the PTC regulations and the railroads’ common carrier obligation, which requires the carriers to provide

² But see 73 FR 17818, 17824-25 (April 1, 2008). In its comments, the Trade Associations misunderstand FRA’s statements. In this and the referenced proceeding, FRA has not asserted any authority to determine a railroad’s common carrier obligation. In the rulemaking cited by the Trade Associations, FRA discussed the test used by STB to determine the reasonableness of interchange requirements in assessing if those requirements violate the common carrier obligation before ultimately concluding that FRA did not view the particular interchange requirement at issue as reasonable.

service on reasonable request. PPG expresses similar concerns with the regulatory provision cited by the Trade Association and complains that seeking STB enforcement of the railroads' common carrier obligation could take months, if not longer, to resolve. Accordingly, PPG urges FRA to clarify that 49 CFR § 236.1005(b)(3)(ii) does not permit a railroad to refuse PIH materials service because a rail line does not have a PTC system installed, and that rail movement of PIH commodities may be provided over a non-PTC-equipped line pending approval of FRA and the actual construction to add a PTC system to such line.

US Magnesium also testified at the hearing. While extracting magnesium from the Great Salt Lake brines, US Magnesium produces chlorine as a co-product. Since chlorine cannot be vented or stored, US Magnesium must ship or sell it. However, according to US Magnesium, the chlorine market is seasonable and dynamic, with customers and demand levels always changing, requiring the company to change chlorine shipping routes to meet market conditions. US Magnesium believes that PTC technology will contribute greatly to continuing incident free performance and it claims that it has been affected by the railroads' interest in limiting or ceasing PIH shipments. While it recognizes the STB's resistance to railroad attempts to unilaterally restrict PIH routings, US Magnesium believes that removal of the two qualifying tests would allow elimination of lines from a PTCIP, thus facilitating the railroads' efforts to limit their common carrier obligation. US Magnesium expects the railroads to argue to the STB that they should not be ordered to provide PIH service over routes where they have informed FRA that no PTC system will be installed.

These comments indicate some confusion over the jurisdiction of the various federal agencies governing the rail transportation of hazardous materials. Specifically, these commenters suggest that the PTC rule might be construed by FRA or STB to limit what line

segments PIH materials may travel over. The structure of 49 CFR part 236, subpart I, requires that PTC systems be installed on many line segments over which PIH materials are transported; it does not in any way govern the movements of PIH materials.

While both FRA and STB are vested with authority to ensure safety in the railroad industry, each agency recognizes the other agency's expertise in regulating the industry.³ FRA has expertise in the safety of all facets of railroad operations, and is authorized to promote safety in every area of railroad operations and reduce railroad-related accidents and injuries. 49 U.S.C. 20101 and 20102. Concurrently, the STB has expertise in economic regulation and assessment of environmental impacts in the railroad industry, as an economic regulatory agency charged by Congress with resolving railroad rate and service disputes and reviewing proposed railroad mergers and acquisitions. See 49 U.S.C. 10701(a), 10702. Further, there is no limitation over the STB's authority to address the reasonableness of a railroad's practices. See STB Ex Parte No. 661, Rail Fuel Surcharges (Aug. 3, 2006). Together, the agencies appreciate that their unique experience and oversight of railroads complement each other's interest in promoting a safe and viable industry.

Accordingly, FRA recognizes that conflicts between railroad carriers and railroad shippers relating to common carrier obligations are best resolved by STB. The STB has previously ruled on railroad obligations to quote common carrier rates and provide service for the transportation of PIH materials such as chlorine. Union Pacific Railroad Company, STB Finance Docket No. 35219 (2009); see also Akron, Canton & Youngstown Railroad Company v.

³ The rail transportation policy, 49 U.S.C. 10101, establishes the basic policy directive against which all of the statutory provisions the Board administers must be evaluated. The RTP provides, in relevant part, that “[i]n regulating the railroad industry, it is the policy of the United States Government . . . to promote a safe and efficient rail transportation” by allowing rail carriers to “operate transportation facilities and equipment without detriment to the public health and safety.” See, e.g., 49 CFR part 244; 67 FR 11582 (Mar. 15, 2002).

Interstate Commerce Commission, 611 P.2d 1162 (6th Cir. 1979). FRA does not seek to interfere with STB's role in providing economic oversight of the railroad industry. Rather, just as the STB has previously declined to substitute its safety and security judgments for those of FRA, FRA presently declines to substitute its economic judgments for those of STB. In establishing and modifying rules governing PTC system implementation, FRA does not regulate what route over which PIH materials must move, as responsibility for such regulations lies with PHMSA. See 73 FR 72182 (Nov. 26, 2008). FRA's PTC regulations expressly allow for new PIH material traffic over a line segment that previously lacked such traffic, and as such does not preempt the oversight and regulatory functions of either PHMSA or STB.

FRA is aware that the impact of the present rulemaking will be to reduce the number of line segments included within the overall map of PTC system installations. The Trade Associations argue that the result of this reduction will be an ability of railroad carriers to unilaterally restrict PIH materials shipments by reducing the number of PTC-equipped line segments and subsequently refusing to carry PIH materials that would require straying from these line segments. However, because neither the prior or instant PTC rulemakings limit or restrict the common carrier obligation, enforced by STB, FRA does not view a reduction in PTC-equipped line segments as causing a reduction in available service for future PIH materials shipments. Additionally, there are substantial checks on a railroad's ability to modify its routes in such a manner. Oversight by the STB and FRA (in enforcing the PHMSA rail routing regulation) may preclude or even require certain routing and rerouting decisions. Furthermore, because railroads will likely seek to maximize the return on their investment in PTC system installation, railroads can be reasonably expected to maximize the connectivity of PTC-equipped segments to limit where additional PTC systems may ultimately be required. As discussed

above, even where a railroad is able to reroute its PIH materials traffic in accordance with the PHMSA regulations, resulting in future PIH materials traffic needing to traverse a line segment that does not have a PTC system in order to travel from its source to its destination, FRA does not view such rerouting as a barrier to future PIH materials traffic. While STB is the agency ultimately responsible for the enforcement of the common carrier obligation, and FRA recognizes that PTC system implementation may affect STB's review of rates, FRA does not view the requirement to install PTC systems on certain rail lines as affecting the common carrier obligation in any way.

With respect to the application of 49 CFR 236.1005(b)(3), FRA views the provision as neutral with respect to the common carrier obligation. Where new PIH materials traffic exists on a line that meets the tonnage threshold, whether by the railroad's acceptance of the PIH material for transportation or by STB action to require such transportation, the rule requires the railroad carrier to file a PTCIP or RFA as soon as possible and to implement a PTC system on that line segment within 24 months. FRA expects that PTCIP or RFA to include risk mitigation and other measures necessary to effectively and efficiently implement the new PTC system so that PIH materials may safely traverse the line segment during those intervening two years. If the filings do not sufficiently address these issues, FRA may approve the PTCIP or grant the RFA with conditions intended to ensure as much.

C. Passenger Rail Impact

In its filed comments, Amtrak reiterates its support of PTC system implementation and expects that it will complete installation on its lines in advance of the statutory deadline. Amtrak's comments are otherwise limited to concerns relating to the impact of this rulemaking on passenger railroads, and on federal and state funding requirements for passenger rail service.

Amtrak states that if the proposed rule is adopted, railroads will not be required to install PTC systems on rail lines that were used to transport PIH shipments in 2008, but are no longer being utilized for PIH materials traffic as of December 31, 2015. Amtrak expresses concern that passenger rail operators—whose presence may now be the sole reason for mandatory PTC system implementation on those lines—may be asked to bear some or all of the costs of PTC system installation that would have been borne by freight railroads under the original rule. Amtrak believes that this rule may pose a risk to the continued operation of affected passenger rail services since they do not generate profits, rely on constrained taxpayer funding, and Amtrak is already burdened by the need to fund PTC system installations on lines it owns.

Amtrak states that the impact of the proposed rule on passenger railroads cannot be determined from the record in this proceeding. While the RIA invited comments on the accuracy of the data submitted by AAR—indicating that its member railroads have 1,562 route miles used for passenger rail service on which PIH materials traffic was handled in 2008, but on which PIH materials traffic is expected to cease by 2015—Amtrak argues that the data is insufficient to determine the affected route segments that have passenger rail service. Amtrak asserts that additional federal funding is limited.

FRA understands that, upon cessation of PIH materials traffic, a line segment may still require PTC system implementation due to the existence of passenger traffic. In some situations not under the control of FRA, this may result in the distribution of costs between the freight and passenger railroads. However, as was the case with respect to similar concerns expressed by the Trade Associations and shippers, this distributional concern alone does not provide adequate justification for maintaining the two qualifying tests. Moreover, it is within the jurisdiction of the STB to settle disputes and determine appropriate rate structures between freight railroads,

shippers, and passenger operators in these circumstances. In response to Amtrak's concerns relating to insufficient funding, the availability of funds to support passenger railroads in the installation of PTC systems is outside the scope of this rulemaking. In regards to Amtrak's concerns regarding insufficient data to determine the affected route segments, it is FRA's understanding that the host and tenant railroads, through their discussions, would be able to communicate this information. To provide that information in this proceeding risks exposing certain sensitive security information.

D. Cost-Benefit Analysis

1. Trade Associations

The Trade Associations also take issue with FRA's cost-benefit analysis, asserting that it is flawed. The Trade Associations support the Peabody Reports' assertion that FRA relied upon a cost-benefit analysis that substantially and erroneously excluded business benefits accruing to railroads, shippers and the public. According to the Trade Associations, this exclusion of business benefits violates Office of Management and Budget ("OMB") Circular A-4, which governs cost-benefit analyses conducted by federal agencies and resulted in an erroneous cost-benefit ratio of 20:1 in the PTC final rule published on January 15, 2010. The Trade Associations assert that the flaws in the January 2010 cost-benefit analysis accompanying the original final rule are continued and more extensive in the instant rulemaking.

Ultimately, the Trade Associations and Peabody contend that FRA's cost-benefit analysis should have considered business benefits that they contend would significantly reduce the gap between the required PTC system implementation's costs and benefits. These parties discuss a 2004 report produced by Zeta-Tech Associates, commissioned by FRA, quantifying the business benefits of positive train control, with direct and indirect business benefits ranging between \$2.2

and \$3.8 billion annually, in 2001 dollars.⁴ According to the Trade Associations, these benefits include increased line capacity; fuel savings; improved rail dispatching operations; and societal benefits from reduced highway crashes and reduced pollution emissions. Using these findings, in conjunction with other sources, FRA in 2004 submitted a report to Congress offering differing opinions as to whether or not PTC technologies could generate business benefits. One point of view was that PTC technologies could create net societal benefits that ranged from \$2.1 to \$3.9 billion annually, including significant accident-avoidance benefits as a result of modal diversion from highway to rail transportation.

Peabody posits that Congress passed RSIA in 2008 based in part on FRA's report. Peabody also indicates that as part of the rulemaking developing the 2010 PTC rule, FRA updated each element of the 2004 report, but did not include them in the RIA for that rule, which considered only direct railroad safety benefits and total direct implementation costs in its cost-benefit analysis. If FRA had included the business benefits as part of its economic analysis associated with the initial PTC rulemaking published on January 15, 2010, Peabody contends that the cost-benefit ratio would have been restated as 1.1:1.0. Peabody's own May 2010 report asserts that a 0.86:1.00 cost-benefit ratio is more realistic. However, by not including those benefits, FRA's RIA reflected a cost-benefit ratio of 21.7:1.0.

In its report, Peabody asserts that FRA's cost-benefit analysis in this rulemaking should be based on the "no action scenario" (i.e., where PTC systems are not required), which would result in a much lower cost-benefit ratio than the 1:20 ratio contemplated by this rulemaking. In

⁴ Zeta-Tech Associates, Quantification of the Business Benefits of Positive Train Control (Mar. 15, 2004) at 10-11. The Zeta-Tech analysis' estimate of benefits ranged as low as \$0.9 billion annually, including \$0.4 billion in benefits accruing to shippers. See also Federal Railroad Administration, Benefits and Costs of Positive Train Control (Aug. 2004) (noting the numerous assumptions made by the Zeta-Tech analysis and also noting that some of these benefits may already be realized or may be realized without PTC system implementation).

other words, Peabody believes that FRA should determine the change in costs and benefits where PTC systems have not yet been installed, not where PTC systems will be installed in the future. According to Peabody, FRA's cost-benefit analyses support a perceived effort by the railroads to limit routes, forcing more PIH onto the roads or increasing shipper costs.

FRA disagrees with Peabody. The "no action scenario" would leave the final rule in place and PTC system implementation would be required without the relief of this rulemaking. Peabody misstates what result occurs in a "no action scenario" for this rulemaking. Contrary to Peabody's assumptions, if FRA were not to publish this final rule, the result would be a continuation of the requirement to install PTC systems on certain line segments. In Circular A-4, Regulatory Analysis, the Office of Management and Budget, says "[i]t may be reasonable to forecast that the world absent the regulation will resemble the present. If this is the case, however, your baseline should reflect the future effect of current government programs and policies." The future effect of the prior final rules is that PTC systems will be installed on a number of line segments. Accordingly, the no-action alternative includes the cost of PTC systems on those line segments and the commensurate costs and benefits. Peabody, as well as the Trade Associations generally, also relies on the Zeta-Tech Report to claim that FRA has failed to account for some business benefits that result from PTC system implementation. However, as FRA stated in its contemporaneous report to Congress, many of these benefits were speculative or achievable through other means. The intervening years have validated FRA's concerns with the report. The PTC systems that presently exist lack some of the features that Zeta-Tech used to justify its benefit assumptions, and railroads have already achieved some of the operational benefits without PTC system implementation. Accordingly, FRA cannot treat these benefits as attributable to PTC system implementation.

Peabody asserts that FRA does not consider the costs or benefits to shippers or the public in its analysis. Peabody comes to this conclusion based on the exclusion of business and other societal benefits. Peabody also claims that FRA includes only railroad safety benefits in its economic analyses and continues to exclude business and other societal benefits that FRA had itself identified, quantified, and championed for much of the previous decade. FRA specifically did account for safety benefits accruing to society at large, such as evacuations. The costs of removing these benefits are accounted for in this final rule.

In analyzing the PTC rule, FRA included a sensitivity analysis with business benefits when it appeared there was a possibility that a railroad would adopt a PTC system capable of generating business benefits. According to the railroads' PTCIPs submitted to FRA, there are no PTC systems that would generate business benefits, other than from train pacing, in the 20-year analysis period. The only business benefit that FRA had included in its base analysis of the PTC final rule was fuel savings that would result from train pacing. Only one railroad has adopted train pacing systems integrated with its PTC system, and that railroad is not likely to change the number of locomotives equipped for train pacing, and thus is not likely to see any change in its business benefits. In other words, issuance of this final rule is not expected to impact fuel saving benefit levels. To the extent that PTC systems planned for implementation would not include aspects to facilitate business benefit realization, there is no impact on business benefits from reducing the mileage over which wayside components will be installed. FRA does not anticipate the other forms of business benefits identified in the Zeta-Tech Report—improved work order reporting and precision dispatch systems—to be present in the PTC systems implemented by railroads. No such systems have been described in the PTCIP of any railroad; furthermore, while

some railroads are implementing work order reporting and precision dispatch systems, these railroads are not integrating the systems into their PTC system due to technological infeasibility.

FRA does not have any evidence that railroads installing PTC systems have found a way to make a profit by integrating additional equipment that would generate the kinds of business benefits described in the Peabody analysis. The railroads have long argued that there was no way for them to make a profit from PTC systems, and their behavior is consistent with that assertion. In FRA's 2004 letter report to Congress, the suggested business benefits would have been relatively large, but very little of that business benefit would have accrued to railroads. The business benefits would have gone in large measure (roughly 80 percent) to shippers, who in turn would have created even larger societal benefits. There is no market mechanism for railroads to share in most of those benefits. FRA therefore has no reason to believe that railroads will perform technological integrations that will create large business benefits.

According to Peabody, FRA relies on several unsupported assumptions and estimates to derive its cost and benefit calculations. This appears to be a criticism of two assumptions that FRA relied upon in order to estimate this rule's impact: that 50 percent of segments submitted for exclusion from the system would have passed the "two tests" and that, under the prior rule mitigation costs, the costs of risk mitigating technologies currently referenced under § 236.1020, would have averaged \$10,000 per mile. While AAR also questioned the assumption that 50 percent of segments would pass the two tests, AAR did not comment on the estimate for mitigation costs.

To perform a cost-benefit analysis in this proceeding, FRA required an estimated number of miles in the PTC network that would be affected by the final rule, and therefore estimated the number of miles in the PTC network that would fail one or both of the two qualifying tests and

would have been required to be PTC-equipped. The two qualifying tests were intended to ensure that PTC systems were installed on certain risk-sensitive line segments. The tests would have no impact had all segments or no segments met the requirements of both tests. In order to estimate the affected mileage, FRA needed an estimate of how many miles the railroads could justify and likely remove from their systems—a figure provided by AAR (estimated at 10,000 miles in the base case)—and an estimated probability of how likely those segments meet the minimum requirements of the two qualifying tests had the prior final rule remained unchanged.

As noted, the two qualifying tests were never fully implemented and applied to track segments, so it is impossible to make inferences about the test results. Since the residual risk test was not developed, FRA cannot make an informed estimate of the proportion of segments likely to fail one or both of the two qualifying tests. FRA chose 50 percent as an estimate of the proportion of segments the railroads want to remove from PIH materials service that would pass both tests, because it provides the lowest expected difference from a percentage chosen at random in the possible range of 0 percent to 100 percent. No party has offered an alternative estimate, and no party has provided a means of deriving an alternative estimate, despite FRA's request for comments and information on this issue. See 76 FR 52,918, 52,921, 52,924. If FRA were to conduct a sensitivity analysis on this range, it would be difficult to choose a range of passing percentages for the undeveloped test. For the purposes of argument, FRA uses a range of 25 percent to 75 percent, representing a broad range of possible percentages covering half of the possible range from 0 percent to 100 percent.

Given this reasonable range, an additional sensitivity analysis is unnecessary, as such an analysis would yield similar results as the analysis already present. In the sensitivity analysis of the NPRM, which estimated the range of miles of line segments over which PIH materials would

be removed, FRA calculated benefits with the number of miles equaling 7,000 miles, 10,000 miles, and 14,000 miles. As discussed above, some of these miles would have no longer been required to have an implemented PTC system under the prior rules; FRA estimated that only half of these miles would be required to install PTC systems under the prior rules. As such, FRA calculated the benefits of removing PTC systems from 3,500, 5,000, and 7,000 miles – 50 percent respectively of 7,000, 10,000, and 14,000 miles. Were FRA to perform a new sensitivity analysis on the percentage of miles that would have no longer been required to have a PTC system implemented, the estimates of 25 percent, 50 percent, and 75 percent of miles passing the two qualifying tests and not requiring PTC systems would result in 7,500, 5,000, and 2,500 miles – 75 percent, 50 percent, and 25 percent of 10,000, respectively – that would have nonetheless required PTC systems. Accordingly, FRA would calculate the benefits of removing PTC systems from 2,500, 5,000, and 7,500 miles. The analysis of mileage estimates so similar to those used by FRA in its existing sensitivity analysis would not yield meaningful new data, and therefore additional sensitivity analysis on the percentage of segments passing both tests would be redundant.

Peabody also objects to the estimates of mitigation costs avoided. Under the PTC final rule issued in January 2010, in order to remove some segments from the PTC system network, and to compensate for the resulting safety reductions, the railroads would have had to propose mitigations of the additional risk created by that removal. FRA purposefully avoided defining such mitigations, providing the railroads the flexibility to propose their own solutions, which would then be subject to FRA approval. Even if FRA had fully developed the methodologies for the two qualifying tests, FRA still would not have prescribed particular mitigations, and therefore would not require mitigation that would be more costly than the estimates provided and

where less costly solutions are available. To estimate these mitigation costs, FRA made the reasonable assumption that mitigation costs could only rise to a certain percentage of the total wayside costs of implementing PTC technologies; as the cost of mitigations rises, the likelihood rises of a railroad deciding to install a PTC system rather than incur the mitigation costs. The mitigation cost estimate also includes resources that might have been expended to pass the tests. Despite FRA's request for comments on its calculation of costs, no commenter provided alternative estimates or methodologies for the agency to use in lieu of the present estimates.

Peabody also states that FRA ought to include business benefits because FRA included some uncertain figures without including other uncertain figures. More specifically, according to Peabody, FRA is uncertain about the correct values of the two figures it included in its business economic estimates (i.e., the proportion passing both qualifying tests and the cost per mile for mitigations) and FRA was also uncertain (in analyzing the PTC rule) about whether business benefits would be generated, which FRA did not include. FRA is certain that a percentage of track segments would have passed the two qualifying tests, and is using the best estimate available to calculate the impacts. FRA is also certain that some segments would have required mitigation, and is using the best information available regarding the expected cost of the mitigations. FRA was required to estimate these values, and FRA has pointed out that within reasonable ranges the exact value of these estimates will not affect FRA's conclusions. The final rule still provides net societal benefits regardless of the range of impact. In other words, since the costs exceed the benefits for any given mile of PTC system implementation, removing the requirement to install a PTC system for any number of miles in the scope proposed will result in a net benefit. At this time, FRA is less uncertain about whether the PTC systems being adopted under the PTC rule will create business benefits of the type and magnitude explored in the

sensitivity analysis of the prior final rule, for the reasons described above. It is clear that with minor exceptions, unaffected by this final rule, the railroads have adopted PTC systems that will not likely create the kinds of business and societal benefits suggested in the sensitivity analysis of the prior final rule.

Peabody asserts that in many cases FRA accepts, without question, AAR's estimates and assumptions. Peabody also claims that FRA improperly focuses on the net costs and benefits associated with PTC system implementation based on the AAR's estimated 10,000 track miles that would be PTC-equipped but for the proposed rules changes. Peabody says that, in doing so, FRA fails to account for 3,500 track miles it had originally determined would not be equipped with PTC systems.

FRA did not accept or adopt any of AAR's estimates without first analyzing them. Peabody refers to estimates of how many miles of PTC system wayside equipment would be affected by this rule. FRA includes AAR's estimate as the base case, because railroads are the parties most likely to know how much wayside would be affected. The railroads' actions will determine how much of their systems may be excludable under the final rule, and they do not seem to have an incentive to misstate that amount.

As previously noted, FRA assumes that 50 percent of the segments that the railroads plan to remove from the PTC network could pass both tests. When analyzing the PTC rule published in January 2010, FRA had estimated that the railroads could exclude roughly 3,500 miles due to the cessation of PIH materials traffic. If those segments represent the 50 percent of those track segments that would have passed the two tests, this would imply that the railroads would have been interested in removing roughly 7,000 miles from their PTC networks, a figure that has become the low benefit case.

In its analysis for the NPRM in the instant proceeding, FRA assumed that the 3,500 miles are a subset of those 10,000 miles that would not be equipped with PTC systems, and are therefore accounted for. When analyzing the PTC rule published in January 2010, FRA needed to estimate the number of miles that might have been eligible to avoid PTC system implementation in the event that PIH materials traffic would be removed. FRA reviewed traffic patterns for segments from which FRA believed the railroads could remove PIH materials traffic with little or no difficulty. For that rulemaking, this information supported the conservative estimate used in the analysis of the NPRM. FRA did not receive any dissenting comments.

In analyzing the NPRM issued in the instant proceeding, FRA attempted to remain consistent with the aforementioned prior analysis, as it had subsequently become the subject of much discussion. From the railroads' submissions, it does not appear that the 10,000 miles are in addition to the 3,500 miles; rather, the 3,500 miles are a subset of the 10,000 miles. In its comments, AAR did not challenge or correct FRA's impression that the 10,000 miles included the 3,500 miles. FRA therefore continues to assume that the 3,500 miles are a subset of the mileage AAR intends to remove from PIH service. In reviewing AAR's data, FRA found that the 10,000 miles included many track segments that FRA, in previously arriving at the 3,500 mile figure, did not think it would have been practical to select for removal of PIH materials traffic when compared to the 3,500 miles for which there appeared to be several logical mitigation treatments. FRA was presented with several options for estimating the impact of this rule in light of the new data provided by AAR. While FRA could have analyzed a low case that consisted of removing the two tests from the 3,500 miles, yielding an estimate where the savings were the avoided costs of undergoing the two tests and undertaking mitigations, this does not seem to be a reasonable alternative to analyze as the railroads are already claiming that they

intend to remove many more segments from PIH service. Alternatively, FRA could have treated the 3,500 miles as the only subset of the 10,000 miles that would pass the two tests. As a result, the percentage passing both tests would be 35 percent with a base mileage of 10,000 miles. As noted in the sensitivity analysis, the 14,000 mile case with 50 percent proportion passing both tests provides very similar results as considering a 10,000 mile case with only 30 percent passing both tests. A case using 35 percent is not very different from a case using 30 percent, and presenting it would not add any value to a decision maker. Finally, FRA could continue to use the 3,500 mile figure as representative of what would happen in a low case, with 7,000 miles and 50 percent of segments passing both tests. This adds value as a low case in sensitivity analysis. FRA has adopted this latter approach, and continues to believe the approach is sound.

Peabody also claims that, if FRA were to reconduct its economic analysis of the prior final rules, the outcome would be a reduced estimate of the total cost of PTC wayside implementation. However, FRA is not updating its analysis of the prior final rule; the agency is only estimating the impacts of the changes induced by this final rule. This estimate relies upon PTC system implementation plan submissions to arrive at total PTC system mileage, though total mileage has relatively little impact on the analysis, and on AAR representations as to the affected mileage. Peabody also uses its mileage estimates to argue that fewer locomotives than FRA estimates will no longer need to be equipped with PTC onboard apparatuses. In making this comment, Peabody appears to rely on its mileage estimates that differ with FRA's. FRA's estimates are based on actual railroad PTC implementation plans, and on its estimates of affected mileage. The primary use of this calculation is for FRA to estimate the impact on locomotive costs on small entities. In doing so, FRA also estimated impact of this final rule on Class II railroads. Reduced locomotive costs account for roughly 2 percent of the benefits. Even if FRA

were to reduce that by 30 percent, as Peabody requests, the total societal benefits accruing from this rulemaking would be decreased by 0.6 percent. Use of the Peabody estimate would not impact the RIA's conclusion.

Peabody also asserts that FRA erred in assuming an annual PTC system maintenance cost of 15 percent of the total installation costs, substituting a 12.5 percent factor. However, FRA continues to believe maintenance costs will be relatively high compared to electronic equipment that does not need to pass strict qualification procedures. Railroads and their suppliers will use components developed for the general market, including microprocessors. The railroad segment is not sufficiently large to provide an incentive for chipmakers to develop or manufacture microprocessors exclusively for railroad use. Thus, when microprocessors become obsolete, the railroads and their suppliers will have to buy different microprocessors, and re-qualify their PTC systems using the newer microprocessors. This will increase the maintenance costs relative to the value of the installed base. FRA will continue to use its estimate that maintenance costs will be 15%, and will adjust only if future empirical evidence indicates otherwise. Maintenance cost savings were 59 percent of the total benefit using a 7 percent discount factor and 65 percent of the total benefit using a 3 percent discount factor. Reducing maintenance costs by one-sixth (12.5 percent instead of 15 percent) would reduce the total benefit estimate by 10-11 percent. Even assuming the lower number of locomotives estimated by Peabody and the lower maintenance savings estimated by Peabody would not have any impact on the conclusions of the analysis, that benefits far exceed costs.

Peabody also argues that FRA improperly shifted the analysis period from 2009-2028 to 2012-2031. However, as was the case in several of Peabody's other arguments, here Peabody fails to take heed of the fact that the instant rulemaking is a new proceeding. Accordingly, FRA

has adopted a current starting point and 20 year time period for analysis. Decisions made prior to this rulemaking were not impacted by this rulemaking, and this analysis is appropriately forward-looking only.

Peabody claims that the exclusion of so-called headline accidents is unverified. FRA pointed out in its analysis that all of the headline accidents involved either passenger trains or release of chlorine, a PIH material. Relief under this rulemaking will only apply to segments from which PIH is removed (except for de minimis quantities) and do not have passenger traffic except on other than main lines as defined in the regulation. The conditions under which the headline accidents generally occur would not allow for line segments to get relief from PTC requirements. Thus, headline accidents are not relevant to the costs or benefits of this rule, as there is not a substantial risk of such accidents occurring on the line segments no longer required to be equipped with PTC systems as a result of this rule. Peabody also objects to applying a percentage to the risk of other PTC-preventable accidents on the segments. FRA reviewed data submitted by railroads for segments likely to be those from which PIH materials traffic would be removed, and made two observations. First, FRA observed that the railroads claimed that only 21 PTC-preventable accidents had occurred over a 7 year period, an average of 3 per year. This contrasts with the PTC-preventable accident data on which FRA based the PTC final rule, which showed an average of 52 PTC-preventable accidents per year, excluding headline accidents. FRA also observed that in general the segments appeared to have below-average tonnage volumes, although FRA does not have directly comparable volume data for the entire PTC network. It seemed improbable to FRA that roughly 16 percent of the PTC network had only 5.8 percent of the PTC-preventable accidents, but clearly the average risk per mile would be lower. The calculated probability of an accident on the miles to be removed was 36.2 percent of the

likelihood on the entire PTC network.⁵ It also seemed unlikely that the risk per mile was identical between the entire PTC network and the miles to be removed from PIH materials service. As a conservative estimate, FRA used a value of 60% to estimate the accident benefits that would no longer occur on segments removed from the PTC network, a value that leads to a higher estimate of costs than a value of 36% would have. In other words, 60% constitutes a risk estimate within a range of 36% and 100% of the risk for the segments not subject to this rule, and the 60% estimate falls toward the lower end as a result of adjustments for density and regulatory changes implemented since the publication of the previous final rule. Peabody argues that the removal of the headline accidents was a sufficient reduction in estimated risk. FRA disagrees. In addition to the reduction of risk from the absence of PIH and passenger traffic, the available evidence indicates that the segments eligible for exclusion are less likely to have non-headline PTC-preventable accidents, and FRA has estimated the costs and benefits of excluding such segments accordingly.

Finally, Peabody objects to FRA's approach to annualization of costs. This approach is based on OMB guidance and used by DOT for all significant regulations.⁶ Accordingly, FRA will retain the annualized estimates.

2. AAR

AAR recognizes the RSIA mandate that PTC systems must be implemented by December 31, 2015, on main lines used to transport passengers or PIH materials and that FRA maintains the statutory discretion to require additional PTC system implementation. However, AAR asserts that FRA's discretion must be exercised reasonably. With a cost-benefit ratio of 20:1, AAR

⁵ Calculation: $((3 \text{ accidents per year}) / (52 \text{ accidents per year})) / ((11,248.43 \text{ miles}) / (70,000 \text{ miles})) = 36.2 \text{ percent}$.

⁶ OMB Circular A-4 at 45 ("You should present annualized benefits and costs using real discount rates of 3 and 7 percent.").

believes that it is patently unreasonable for FRA to exercise any discretion beyond the statute's minimum implementation requirements. For the same reason, AAR states that the two qualifying tests are inconsistent with RSIA, because, "No additional prerequisites are appropriate unless FRA can justify additional PTC requirements beyond the statutory mandate. There is no justification for going beyond the statutory mandate in any event, but especially with such a disparate cost-benefit ratio."

AAR believes that removal of the two qualifying tests could result in avoiding PTC system implementation on 10,000 track miles. AAR determined this amount based upon the difference between PIH materials route maps as they looked in 2008 and what they expect them to look like by the end of 2015. AAR expects a reduction in track miles upon which PIH materials will be transported due to a change of customer demands, regulatory compliance, and pro rata changes to become more efficient. AAR estimates PTC system installation-related savings of \$50,000 per mile, totaling \$500 million. AAR expects further savings from avoiding the associated maintenance costs.

With the removal of the two qualifying tests, AAR believes that a railroad should still be able to file an RFA to remove a track segment from the PTCIP's implementation schedule if there is passenger service on the line that qualifies for a main line track exclusion under 49 CFR § 236.1019. According to AAR, the statement in the first sentence of proposed § 236.1005(b)(4)(i)—that a line qualifies only if there is a "cessation of passenger service"—could be interpreted as stating that a PTC system will be required for a line over which no PIH materials will be transported after 2015 if there is any passenger service, even if the passenger service qualifies for a main line track exclusion. While FRA viewed the prior language as

sufficient to allow for the exclusion of such lines, the rule text has nonetheless been further clarified to explicitly reference main line track exclusions.

In the preamble to the proposed amendments, FRA asks about the accuracy of its cost-benefit analysis. While there are some differences between AAR's and FRA's assessment of costs, the differences would not materially affect FRA's conclusion that the costs to the industry that would be avoided far outweigh any benefits that would be lost. In general FRA assumes the base cost of \$50,000 per mile has not changed as a result of technological advancements. Further, FRA assumes this \$50,000 per mile estimate represents a variable cost estimate that is relatively constant across different segments of track.

While AAR indicated that removal of the two qualifying tests could potentially avoid PTC system implementation on 10,000 track miles, FRA also performed a sensitivity analysis in its proposed RIA, using 7,000 miles as a conservative low-number threshold. AAR believes that FRA underestimates the route miles at stake, because it presumably does not account for track miles potentially affected by the currently undeveloped residual risk analysis. Thus, AAR states that it does not know the basis for FRA's assumption that 50 percent of the lines in question would have qualified under that criterion. FRA agrees that it is difficult to estimate the percentage of segments that would have met both tests, because both tests were not fully developed. As noted in its response to the Peabody study, FRA's sensitivity analysis provides a view of what the outcome might have been under the base case had the percentage passing the two tests been higher or lower. Ultimately, regardless of the exact number of miles no longer requiring PTC system implementation, the societal benefits of the final rule are much greater than the societal costs.

AAR also contests statements made at the hearing by those representing some of the shippers, taking issue with the shippers' reliance on the Peabody and Zeta-Tech studies, which AAR asserts was already refuted by the Oliver Wyman study sent to FRA on April 27, 2010. In particular, while the Peabody and Zeta-Tech studies each provide a cost-benefit analysis that included business benefits, Oliver Wyman contends that with the advancements made since the writing of the Zeta-Tech report, this benefit would be "minimal."

AAR believes that the shippers' reference to the Zeta-Tech analysis is misplaced, because it analyzed hypothetical PTC systems and hypothetical business benefits. AAR asserts that some of those business benefits have already been achieved through implementation of other systems and that the PTC systems being installed will not enhance the capability to achieve those business benefits. Moreover, according to AAR, the PTC systems currently being installed will lack those business benefits and will likely face many operational inefficiencies, particularly as they relate to braking algorithm changes and the resultant effect on network velocity and capacity constraints. FRA did not include those business benefits in either the analysis of the NPRM or this analysis, and agrees with AAR that it would not have been proper to include those hypothetical benefits in either analysis, as described in more detail above. In addition, AAR contends that any discussions on pricing or common carrier obligations are not appropriate for this forum. FRA described these issues in more detail in Sections III.A and III.B, above.

IV. Section-by-Section Analysis

Unless otherwise noted, all section references below refer to sections in title 49 of the Code of Federal Regulations (CFR).

Proposed Amendments to 49 CFR Part 236

Section 236.1003 Definitions

FRA currently defines PIH materials within the rule text at § 236.1005(b)(1)(i), which some may find difficult to locate. Accordingly, for the purposes of clarity, FRA is adding the definition for PIH materials to the definitions section of subpart I. The inclusion of this definition in § 236.1003 does not change the meaning of the term as understood under § 236.1005(b)(1)(i) or its cross-reference to §§ 171.8, 173.115, and 173.132.

Section 236.1005 Requirements for Positive Train Control systems

In this final rule, FRA is eliminating the alternative route analysis and the residual risk analysis tests. When initially published in the PTC rule on January 15, 2010, these provisions were included in § 236.1005(b). On September 27, 2010, FRA issued amendments to the PTC rule, moving the text to a new § 236.1020, and providing more clarifying language. However, to ensure continuity and understanding, § 236.1005 contained various cross-references to § 236.1020. As indicated below, FRA is eliminating § 236.1020. Accordingly, FRA is also removing the relevant cross-references in § 236.1005.

AAR has concerns regarding the text of proposed (b)(4). AAR believes that a railroad should still be able to file an RFA to remove a track segment from the PTCIP's implementation schedule if there is passenger service on the line that qualifies the railroad to submit a main line track exclusion addendum (MTEA) under 49 CFR § 236.1019. According to AAR, the statement in the first sentence of proposed § 236.1005(b)(4)(i)—that explicitly references the “cessation of passenger service” but does not discuss MTEAs—could be interpreted as stating that a PTC system will be required for a line over which no PIH will be transported after 2015 if there is any passenger service, even if the passenger service qualifies for an MTEA. AAR also argues that this paragraph, if literally read, provides that FRA will approve a request for excluding a line segment from the PTC mandate if there is a cessation of passenger service or

PIH materials service by December 31, 2015, or a decline in freight traffic below 5 million gross tons over a 2-year period. AAR states that, “The first issue with proposed (b)(4)(ii) is a repetition of the problem presented by the first sentence of (b)(4)(i), a reference to a cessation of passenger service rather than a reduction to an amount qualifying for a main track exclusion. The second issue with proposed (b)(4)(ii) is the use of ‘or.’ Under a strict reading of the proposed language, a line with over 5 million gross tons of freight traffic used for TIH and passenger service, for example, would qualify for an exclusion from the PTC mandate if passenger service ceased even if there were no changes in the freight volume and TIH traffic continued.”

In response to these concerns, FRA has clarified the language of paragraph (b)(4) without changing its intended meaning. Paragraph (b)(4)(i) now specifically mentions the approval of an MTEA as one cause for a routing change to allow for approval of an exclusion. Paragraph (b)(4)(ii) now more precisely states the set of conditions necessary to approve an exclusion. Specifically, an exclusion may only be granted where both of the following conditions are established by the railroad to be true as of December 31, 2015: first, that there is no passenger service, or any passenger service that exists is subject to an MTEA; second, that there is no PIH materials traffic or less than 5 million gross tons of freight traffic.

Section 236.1020 Exclusion of track segments for implementation due to cessation of PIH materials traffic

As previously noted, the current PTC rule requires that, for each RFA seeking to exclude a track segment from PTC system implementation due to the cessation of PIH materials traffic, a railroad must satisfy both an alternative route analysis, and eventually a residual risk analysis test, in order to secure FRA’s approval. FRA’s cost-benefit analysis of the PTC rule indicates

that the railroads will incur approximately \$20 in PTC costs for each \$1 in PTC safety benefits. In its congressional testimony, AAR testified that 2010 was the safest year for America's railroads, that railroads have lower employee injury rates than most other major industries, that only around 4 percent of all train accidents on Class I main lines are likely to be prevented by PTC systems, and that there are many far less costly ways to provide greater improvements in rail safety than through the implementation of PTC systems on lines not required by Congress to be equipped.⁷ According to the testimony, if the PTC rule remains unchanged, railroads may be required to spend more than \$500 million in the next few years to deploy PTC systems on more than 10,000 miles of rail lines on which neither passengers nor PIH materials will be transported as of December 31, 2015.

FRA recognizes that the railroads have much work to do to have interoperable PTC systems implemented in accordance with the congressional mandate by the December 31, 2015, statutory deadline. FRA also recognizes that the alternative route analysis and residual risk tests could potentially require PTC system implementation at a great cost to the railroads on lines that will not carry PIH materials traffic as of December 31, 2015. Lines that no longer carry PIH materials traffic can still pose significant safety risks associated with other hazardous material traffic on the lines and these safety risks may justify a requirement that the lines be equipped with PTC systems. However, as FRA noted when it last amended the PTC rule (75 FR 59111-59113 (Sept. 27, 2010)), FRA will need to develop an appropriate risk methodology through a separate rulemaking proceeding before it can require PTC systems to be installed on any line that no longer carries PIH materials. FRA has had discussion with members of the railroad industry regarding an appropriate risk methodology but has yet to come up with a reasonable and

⁷ See AAR CONGRESSIONAL TESTIMONY, at 8-9.

satisfactory methodology that could form the basis of this further rulemaking. FRA is, therefore, eliminating the two qualifying tests that would potentially require PTC system implementation on lines not specifically mandated by Congress, consistent with Executive Order 13563. To achieve this end, FRA is eliminating § 236.1020. While FRA has removed these analyses from the PTC rule, FRA reserves its statutory and regulatory authority to require PTC system implementation on additional track segments in the future based on risk levels or other rational bases.

V. Regulatory Impact and Notices

A. Executive Orders 12866 and 13563 and DOT Regulatory Policies and Procedures

This final rule has been evaluated in accordance with existing policies and procedures, and determined to be significant under Executive Order 12866, Executive Order 13563 and DOT policies and procedures. 44 FR 11,034 (Feb. 26, 1979). We have prepared and placed in the docket a regulatory impact analysis (RIA) addressing the economic impact of this final rule. FRA is removing regulatory provisions that require railroads to meet two tests in order to avoid PTC system implementation on track segments that were used to transport PIH materials traffic in 2008 and carried 5 million gross tons of traffic, but that, as of December 31, 2015, do not transport PIH materials traffic and are not used for intercity or commuter rail passenger transportation that otherwise require PTC system installation under the rule.. Substantial cost savings will accrue largely from not installing PTC system wayside components or other mitigations along approximately 10,000 miles of track. Although these rail lines will forego some risk reduction, the reductions in risk will likely be small since these lines pose a much lower risk of accidents because they generally do not carry passenger trains or PIH materials and generally have lower accident frequency and severity, because the lines have relatively lower

traffic volumes than the average segment on which PTC systems will be required, based on FRA's review of the data submitted by AAR. The analysis shows that if the assumptions are correct, the savings to the industry in the form of regulatory relief as proposed far outweigh the cost associated with increased accident exposure.

The largest part of the cost savings benefit comes from reducing the extent of wayside that must be equipped with PTC systems. Some of these lines would have qualified for exemption by passing the two tests contained in the 2010 PTC final rule, while others may not have. In addition, benefits will come from reducing the number of locomotives belonging to Class II and Class III (small) railroads that must be equipped with PTC systems, because they run on Class I railroads' track that will no longer need to be equipped with PTC systems. Although these benefits will be small relative to the wayside equipment savings, they would be large relative to the size of the railroads being impacted. The tables below present the total estimated cost savings benefits of the final rule, assuming installation or additional mitigation measures would no longer be required along 10,000 miles of track. The analysis assumes that 5,000 miles of track would have passed both tests with some mitigation measures being taken, and the remaining 5,000 miles would not have passed both tests and would have required PTC system implementation under the rules in effect before this rulemaking.

Benefits (20-year, discounted)		
Costs Avoided:	7% Discount	3% Discount
Reduced Mitigation Costs, Including Maintenance	\$91,793,822	\$121,119,324
Reduced Wayside Costs, Including Maintenance	\$515,695,631	\$680,445,643
Reduced Locomotive Costs, Including Maintenance	\$12,479,834	\$16,466,785
Total Benefits	\$619,969,287	\$818,031,752

Total costs may also be broken down into initial investment and maintenance costs. Although railroads may already have spent money to install and maintain PTC systems, FRA assumes here that those funds have not been spent on the lines considered here, as they tend to be lower volume, lower priority lines, and FRA assumes that the railroads would not install PTC systems on those lines until 2014, at the earliest, in the absence of this rulemaking. FRA estimates that avoiding installation on 10,000 miles would let railroads avoid \$300.5 million in initial installation costs (not discounted). Maintenance cost savings would total \$366.0 million (discounted at 7%) or \$538.9 million (discounted at 3%). Maintenance includes all of the activities and subsequent purchases needed to operate the PTC system over its life-cycle, and to maintain its proper functioning, reliability, and availability. Maintenance includes training, system inspection, testing, adjustments, repair, and replacement of components. Replacement components can be very expensive in processor-based systems with relatively small installed bases, such as PTC. PTC systems are not installed in great enough numbers to justify a processor manufacturer making a processor just for PTC. PTC systems developers must use standard processors, and over time those processors usually become obsolete and are no longer supported or manufactured. Then the PTC system developer must redesign and re-test the PTC system to ensure it will continue to operate safely and reliably with the new processor. The Trade Associations commented that they believe the estimated savings from reduced maintenance costs are too high, and should have been based on 12.5 percent of the value of installed PTC systems, rather than the 15 percent of the value of installed PTC systems used in analyzing both the NPRM and this final rule. For reasons described above, in its response to comments FRA explains its rationale for rejecting the lower estimate of maintenance costs.

Costs associated with the proposed regulatory relief will come from reducing the potential for accident reduction. A substantial part of the accident reduction that FRA expects from PTC systems comes from reducing high-consequence accidents involving passenger trains or the release of PIH materials. FRA believes that the track segments impacted by this final rule pose significantly less risk because they generally do not carry passenger trains or PIH materials and generally have lower accident frequency and severity, as discussed above, because the lines have relatively lower traffic volumes and track speeds than the average segment on which PTC systems are required, based on FRA’s review of the data submitted by AAR. The following tables present the total costs of the final rule as well as the breakdown of the costs by element.

Costs (20-year, discounted)		
Foregone Reductions in:	7% Discount	3% Discount
Fatality Prevention	\$11,453,106	\$16,860,327
Injury Prevention	\$4,254,484	\$6,263,104
Train Delay	\$117,793	\$173,406
Property Damage	\$10,163,835	\$14,962,367
Equipment Cleanup	\$143,273	\$210,915
Environmental Cleanup	\$430,995	\$634,475
Evacuations	\$138,780	\$204,301
Total Costs	\$26,702,267	\$39,308,896

The 20-year discounted net benefits (subtracting the costs from the benefits) are expected to be \$590 million over 20 years, discounted at 7 percent per year; and \$780 million over 20 years, discounted at 3 percent per year. The timing of benefits and costs are such that a large benefit in terms of capital investment is avoided in early years, while the benefit of avoided maintenance and the disbenefit (costs) of accidents not avoided would be realized annually in later years. FRA also assessed the sensitivity of the analysis with respect to scenarios in which

railroads may only be able to get relief for 7,000 miles of track and in which railroads may get relief on as many as 14,000 miles of track. Each of these assumes that 50% of the track miles would have passed both tests with some mitigation measures being taken, and that the remaining 50% of the track miles would not have passed both tests and would have required PTC system implementation under the current rules. Such scenarios also show net benefits.

Net Societal Benefits	7% Discount	3% Discount
Expected Case (10,000 miles)	\$593,267,020	\$778,722,856
High Case (14,000 miles)	\$793,856,299	\$1,041,764,269
Low Case (7,000 miles)	\$442,825,061	\$581,441,797

Further, the benefit-cost ratios under the scenarios analyzed range between 20:1 and 25:1.

Benefit-Cost Ratio	7% Discount	3% Discount
Expected Case	23.22	20.81
High Case	22.24	19.93
Low Case	24.69	22.13

FRA also received comments from the Trade Associations saying that FRA understated the costs of the proposed rule, especially by not accounting for business benefits of PTC that would be lost on the affected segments. FRA has reviewed PTCIPs, and at present the only business benefits the railroads are seemingly likely to realize from PTC would result from train pacing. Train pacing benefits are derived from locomotive onboard equipment, and would not be affected by the reduction in wayside component installations. Train pacing is likely to result in fuel savings, but since train pacing will not be affected by this rule, fuel savings will remain unchanged. This is discussed in more detail in the response to comments above.

B. Regulatory Flexibility Act and Executive Order 13272

To ensure that the impact of this rulemaking on small entities is properly considered, FRA developed this final rule in accordance with Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”) and DOT’s policies and procedures to promote compliance with the Regulatory Flexibility Act (5 U.S.C. 601 et seq.).

The Regulatory Flexibility Act requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant economic impact on a substantial number of small entities.

As discussed in earlier sections of this preamble, FRA is amending the regulations implementing a provision of RSIA that requires certain passenger and freight railroads to install PTC systems. Specifically, FRA is removing two regulatory requirements that require railroads to either conduct further analyses or meet certain risk-based criteria in order to avoid PTC system implementation on track segments that carried PIH traffic and 5 million or more gross tons of traffic in 2008 but that will not carry PIH hazardous materials traffic as of December 31, 2015.

FRA is certifying that this final rule will result in “no significant economic impact on a substantial number of small entities.” The following section explains the reasons for this certification.

1. Description of Regulated Entities and Impacts

The “universe” of the entities under consideration includes only those small entities that can reasonably be expected to be directly affected by the provisions of this rule. In this case, the “universe” would be Class III freight railroads that operate on rail lines that are currently

required to have PTC systems installed. Such lines are owned by railroads not considered to be small.

The U.S. Small Business Administration (SBA) stipulates in its “Size Standards” that the largest a railroad business firm that is “for-profit” may be, and still be classified as a “small entity,” is 1,500 employees for “Line Haul Operating Railroads” and 500 employees for “Switching and Terminal Establishments.” “Small entity” is defined in the Act as a small business that is independently owned and operated, and is not dominant in its field of operation. Additionally, section 601(5) defines “small entities” as governments of cities, counties, towns, townships, villages, school districts, or special districts with populations less than 50,000.

Federal agencies may adopt their own size standards for small entities in consultation with SBA and in conjunction with public comment. Pursuant to that authority, FRA has published a final policy that formally establishes “small entities” as railroads which meet the line haulage revenue requirements of a Class III railroad.⁸ The revenue requirements are currently \$20 million or less in annual operating revenue. The \$20 million limit (which is adjusted by applying the railroad revenue deflator adjustment)⁹ is based on the Surface Transportation Board’s (STB) threshold for a Class III railroad carrier. FRA is using the STB’s threshold in its definition of “small entities” for this rule.

The final rule impacts Class III railroads that operate on lines of other railroads currently required to have PTC systems installed. To the extent that such host railroads receive relief from such a requirement along certain lines, Class III railroads that operate over those lines would not have to equip their locomotives with PTC system components. FRA believes that elimination of

⁸ See 68 FR 24891 (May 9, 2003); 49 CFR part 209, app. C.

⁹ For further information on the calculation of the specific dollar limit, please see 49 CFR part 1201.

the two tests for relief from the requirement to install PTC systems will result in PTC systems not being installed on track segments totaling over 10,000 miles in length. Approximately five small railroads operate locomotives on lines currently required to be equipped with PTC systems, but that would receive relief under the final rule. In addition, two Class III railroads operate over railroad crossings (diamonds) that intersect tracks required to be equipped with PTC systems in the absence of changes adopted in this final rule. The total of seven affected Class III railroads is not a substantial number of small entities, given that there are 674 small railroads. Under the final rule Class III railroads will avoid equipping 28 locomotives with PTC onboard apparatuses at a cost savings of \$55,000 per locomotive initially plus maintenance of the PTC equipment.

As a business model, most small railroads purchase old locomotives being sold by larger railroads, because they have become functionally obsolete for the larger railroads. In the RSAC PTC Working Group discussions leading up to the PTC final rule published in the Federal Register on January 15, 2010, the American Short Line & Regional Railroad Association (ASLRRA) representatives asserted that some short lines are operating locomotives with a market value of no more than \$75,000, and that it would be very difficult for those railroads to equip their locomotives at a unit cost of \$55,000 each. Further, even if the average cost to equip a locomotive is \$55,000, it may be more expensive to equip an older locomotive. These railroads will have to develop a new and unique installation for a small number of locomotives that may also have space limitations and that may not be equipped with the more modern mechanisms and design that make it easier to install PTC systems. One or more of the seven affected small railroads may be using such older locomotives. For such a railroad, the cost of equipping a locomotive with an onboard PTC apparatus may be a significant burden. Thus, the

relief of that burden provided by the final rule may be a significant benefit for such small entities.

The avoided installation cost will also have a significant beneficial effect on small railroads' annual net income. For instance, if a short line railroad avoids onboard PTC apparatus installation on six locomotives, then the savings would be \$330,000. When such a railroad may have annual revenues of \$10 million to \$20 million, with the profit of that amount ranging between \$1 million and \$2 million, the avoided installation cost could be between 16.5 percent and 33 percent of that railroad's annual income. This savings could be a significant benefit for an affected small railroad. However, even if all seven of the affected Class III railroads were to receive a significant benefit, seven railroads is not a substantial number of small railroads.

In addition, a Class III railroad will avoid paying for PTC system installation at one railroad-to-railroad crossing, at an initial cost of \$80,000 plus annual maintenance. Finally, Class III railroads will avoid operational costs associated with having to reduce operating speeds to cross over two railroad-to-railroad crossings at an annual cost of \$43,800. The unit costs presented above for installing PTC systems on locomotives, and at railroad-to-railroad crossings, and the operational costs of operating over a crossing at reduced speed are the values used in the Regulatory Flexibility Analysis of the PTC final rule issued January 15, 2010, and can be found in the docket for that rulemaking. The changes FRA is adopting will benefit the small entities impacted. FRA requested comment on whether the impacts on them would be significant and whether the number of small railroads affected is substantial. The Trade Associations commented that they believe the mileage affected on Class I railroads would be less, and the impact on Class II and Class III railroads also correspondingly less. FRA does not concur with the comments and the information provided by commenters does not provide any rationale

against certification that the rule is not expected to impact a substantial number of small entities significantly. The Trade Associations comments actually support the certification by suggesting that the impact on the affected small entities would be less than FRA had estimated. The seven railroads affected by this rule do not represent a substantial number of railroads out of more than approximately 600 Class III railroads.

2. Certification

Pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b), the FRA Administrator certifies that this final rule will not have a significant economic impact on a substantial number of small entities.

C. Paperwork Reduction Act

The information collection requirements in this final rule are being submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq. The sections that contain the current information collection requirements and the estimated time to fulfill each requirement are as follows:

CFR Section	Respondent Universe	Total Annual Responses	Average Time per Response	Total Annual Burden Hours
234.275 - Processor-Based Systems - Deviations from Product Safety Plan (PSP) – Letters	20 Railroads	25 letters	4 hours	100 hours
236.18 - Software Mgmt Control Plan - Updates to Software Mgmt. Control Plan	184 Railroads 90 Railroads	184 plans 20 updates	2,150 hours 1.50 hours	395,600 hours 30 hours
236.905 - Updates to RSPP - Response to Request For Additional Info. - Request for FRA Approval of RSPP Modification	78 Railroads 78 Railroads 78 Railroads	6 plans 1 updated doc. 1 request/ modified RSPP	135 hours 400 hours 400 hours	810 hours 400 hours 400 hours
236.907 - Product Safety Plan (PSP) – Dev.	5 Railroads	5 plans	6,400 hours	32,000 hours

236.909 - Minimum Performance Standard - Petitions For Review and Approval - Supporting Sensitivity Analysis	5 Railroads 5 Railroads	2 petitions/PSP 5 analyses	19,200 hours 160 hours	38,400 hours 800 hours
236.913 - Notification/Submission to FRA of Joint Product Safety Plan (PSP) - Petitions For Approval/Informational Filings - Responses to FRA Request For Further Info. After Informational Filing - Responses to FRA Request For Further Info. After Agency Receipt of Notice of Product Development - Consultations - Petitions for Final Approval - Comments to FRA by Interested Parties - Third Party Assessments of PSP - Amendments to PSP - Field Testing of Product – Info. Filings	6 Railroads 6 Railroads 6 Railroads 6 Railroads 6 Railroads 6 Railroads Public/RRs 6 Railroads 6 Railroads 6 Railroads	1 joint plan 6 petitions 2 documents 6 documents 6 consults 6 petitions 7 comments 1 assessment 15 amendments 6 documents	25,600 hours 1,928 hours 800 hours 16 hours 120 hours 16 hours 240 hours 104,000 hours 160 hours 3,200 hours	25,600 hours 11,568 hours 1,600 hours 96 hours 720 hours 96 hours 1,680 hours 104,000 hours 2,400 hours 19,200 hours
236.917 - Retention of Records - Results of tests/inspections specified in PSP - Report to FRA of Inconsistencies with frequency of safety-relevant hazards in PSP	6 Railroads 6 Railroads	3 documents/ records 1 report	160,000 hrs.; 160,000 hrs.; 40,000 hrs. 104 hours	360,000 hours 104 hours
236.919 - Operations & Maintenance Man. - Updates to O & M Manual - Plans For Proper Maintenance, Repair, Inspection of Safety-Critical Products - Hardware/Software/Firmware Revisions	6 Railroads 6 Railroads 6 Railroads	6 updated docs. 6 plans 6 revisions	40 hours 53,335 hours 6,440 hours	240 hours 320,010 hours 38,640 hours
236.921 - Training Programs: Development - Training of Signalmen & Dispatchers	6 Railroads 6 Railroads	6 Tr. Programs 300 signalmen; 20 dispatchers	400 hours 40 hours; 20 hours	2,400 hours 12,400 hours
236.923 - Task Analysis/Basic Requirements: Necessary Documents - Records	6 railroads 6 railroads	6 documents 350 records	720 hours 10 minutes	4,320 hours 58 hours
SUBPART I – NEW REQUIREMENTS -236.1001 – RR Development of More Stringent Rules Re: PTC Performance Stds.	46 railroads	3 rules	80 hours	240 hours
- 236.1005 - Requirements for PTC Systems - Temporary Rerouting: Emergency Requests - Written/Telephonic Notification to FRA Regional Administrator - Temporary Rerouting Requests Due to Track Maintenance - Temporary Rerouting Requests That Exceed 30 Days	46 railroads 46 railroads 46 railroads 46 railroads	50 requests 50 notifications 760 requests 380 requests	8 hours 2 hours 8 hours 8 hours	400 hours 100 hours 6,080 hours 3,040 hours
- 236.1006 - Requirements for Equipping Locomotives Operating in PTC Territory - Reports of Movements in Excess of 20 Miles/RR Progress on PTC Locomotives -- PTC Progress Reports	46 railroads 46 railroads	45 reports + 45 reports 35 reports	8 hours + 170 16 hours	8,010 hours 560 hours

- 236.1007 - Additional Requirements for High Speed Service	46 railroads	2 documents	3,200 hours	6,400 hours
- Required HSR-125 Documents with approved PTCSP	46 railroads	1 request	8,000 hours	8,000 hours
- Requests to Use Foreign Service Data	46 railroads	2 documents	3,200 hours	6,400 hours
- PTC Railroads Conducting Operations at More than 150 MPH with HSR-125 Documents	46 railroads	1 request	1,000 hours	1,000 hours
- Requests for PTC Waiver	46 railroads	1 request	1,000 hours	1,000 hours
236.1009-Procedural Requirements	46 Railroads	1 PCTIP;	535 hours;	6,935 hours
- Host Railroads Filing PTCIP or Request for Amendment (RFAs)	46 Railroads	20 RFAs	320 hours	
- Jointly Submitted PTCIPs	46 Railroads	7 PTCIPs	267 hours	1,869 hours
- Notification of Failure to File Joint PTCIP	46 Railroads	1 notification	32 hours	32 hours
- Comprehensive List of Issues Causing Non-Agreement	46 Railroads	1 list	80 hours	80 hours
- Conferences to Develop Mutually Acceptable PCTIP	46 Railroads	2 conf. calls	60 minutes	2 hours
- Type Approval	46 Railroads	2 Type Appr.	8 hours	16 hours
- PTC Development Plans Requesting Type Approval	46 Railroads	20 Ltr. + 20 App; 2 Plans	8 hrs/1600 hrs.; 6,400 hours	44,960 hours
- Notice of Product Intent w/PTCIPs (IPs)	46 Railroads	1 NPI; 1 IP	1,070 + 535 hrs	1,605 hours
-PTCDPs with PTCIPs (DPs + IPs)	46 Railroads	1 DP	2,135 hours	2,135 hours
- Updated PTCIPs w/PTCDPs (IPs + DPs)	46 Railroads	1 IP; 1 DP	535 + 2,135 hrs	2,670 hours
- Disapproved/Resubmitted PTCIPs/NPIs	46 Railroads	1 IP + 1 NPI	135 + 270 hrs.	405 hours
- Revoked Approvals – Provisional IPs/DP	46 Railroads	IP + 1 DP	135 + 535 hrs.	670 hours
- PTC IPs/PTCDPs Still Needing Rework	46 Railroads	1 IP + 1 DP	135 + 535 hrs.	670 hours
- PTCIP/PTCDP/PTCSP Plan Contents – Documents Translated into English	46 Railroads	1 document	8,000 hours	8,000 hours
- Requests for Confidentiality	46 Railroads	46 ltrs; 46 docs	8 hrs.; 800 hrs.	37,168 hours
- Field Test Plans/Independent Assessments - Req. by FRA	46 Railroads	460 field tests; 2 assessments	800 hours	369,600 hours
- FRA Access: Interviews with PTC Wrks.	46 Railroads	92 interviews	30 minutes	46 hours
- FRA Requests for Further Information	46 Railroads	8 documents	400 hours	3,200 hours
236.1011-PTCIP Requirements – Comment	7 Interested Groups	1 rev.; 40 com	143 + 8 hrs.	463 hours
236.1015 - PTCSP Content Requirements & PTC System Certification	46 Railroads	3 PTCSPs	16,000 hours	48,000 hours
- Non-Vital Overlay	46 Railroads	40 PTCSPs	22,400 hours	896,000 hours
- Vital Overlay	46 Railroads	1 PTCSP	32,000 hours	32,000 hours
- Stand Alone	46 Railroads	3 conferences	32 hours	96 hours
- Mixed Systems – Conference with FRA regarding Case/Analysis	46 Railroads	1 PTCSP	28,800 hours	28,800 hours
- Mixed Sys. PTCSPs (incl. safety case)	46 Railroads	23 documents	3,200 hours	73,600 hours
- FRA Request for Additional PTCSP Data	46 Railroads	40 PTCSPs	3,200 hours	128,000 hours
- PTCSPs Applying to Replace Existing Certified PTC Systems	46 Railroads	40 assessments	3,200 hours	128,000 hours
- Non-Quantitative Risk Assessments Supplied to FRA	46 Railroads			

236.1017 – PTCSP Supported by Independent Third Party Assessment - Written Requests to FRA to Confirm Entity Independence - Provision of Additional Information After FRA Request - Independent Third Party Assessment: Waiver Requests - RR Request for FRA to Accept Foreign Railroad Regulator Certified Info.	46 Railroads	1 assessment	8,000 hours	8,000 hours
	46 Railroads	1 request	8 hours	8 hours
	46 Railroads	1 document	160 hours	160 hours
	46 Railroads	1 request	160 hours	160 hours
	46 Railroads	1 request	32 hours	32 hours
236.1019 - Main Line Track Exceptions - Submission of Main Line Track Exclusion Addendums (MTEAs) - Passenger Terminal Exception – MTEAs - Limited Operation Exception – Risk Mit. - Ltd. Exception – Collision Hazard Anal. - Temporal Separation Procedures	46 Railroads	138 MTEAs	160 hours	22,080 hours
	46 Railroads	23 MTEAs	160 hours	3,680 hours
	46 Railroads	46 plans	160 hours	7,360 hours
	46 Railroads	23 analyses	1,600 hours	36,800 hours
	46 Railroads	11 procedures	160 hours	1,760 hours
236.1021 - Discontinuances, Material Modifications, Amendments - Requests to Amend (RFA) PTCIP, PTCDP or PTCSP - Review and Public Comment on RFA	46 Railroads	23 RFAs	160 hours	3,680 hours
	7 Interested Groups	7 reviews + 20 comments	3 hours; 16 hours	341 hours
236.1023 - PTC Product Vendor Lists - RR Procedures Upon Notification of PTC System Safety-Critical Upgrades, Rev., Etc -- RR Notifications of PTC Safety Hazards -- RR Notification Updates - Manufacturer's Report of Investigation of PTC Defect - PTC Supplier Reports of Safety Relevant Failures or Defective Conditions	46 Railroads	46 lists	8 hours	368 hours
	46 Railroads	46 procedures	16 hours	736 hours
	46 Railroads	150 notification	16 hours	2,400 hours
	46 Railroads	150 updates	16 hours	2,400 hours
	5 System Suppliers	5 reports	400 hours	2,000 hours
	5 System Suppliers	150 reports + 150 rpt. copies	16 hours + 8 hours	3,600 hours
236.1029 – Report of On-Board Lead Locomotive PTC Device Failure	46 Railroads	1,012 reports	96 hours	97,152 hours
236.1031- Previously Approved PTC Systems - Request for Expedited Certification (REC) for PTC System - Requests for Grandfathering on PTCSPs	46 Railroads	3 REC Letters	160 hours	480 hours
	46 Railroads	3 requests	1,600 hours	4,800 hours
236.1035- Field Testing Requirements - Relief Requests from Regulations Necessary to Support Field Testing	46 railroads	230 field test plans	800 hours	184,000 hours
	46 Railroads	46 requests	320 hours	14,720 hours
236.1037 - Records Retention - Results of Tests in PTCSP and PTCDP - PTC Service Contractors Training Records - Reports of Safety Relevant Hazards Exceeding Those in PTCSP and PTCDP - Final Report of Resolution of Inconsistency	46 railroads	1,012 records	4 hours	4,048 hours
	46 Railroads	22,080 records	30 minutes	11,040 hours
	46 Railroads	4 reports	8 hours	32 hours
	46 Railroads	4 final reports	160 hours	640 hours

- 236.1039 - Operations & Maintenance Manual (OMM): Development	46 railroads	46 manuals	250 hours	11,500 hours
- Positive Identification of Safety-critical components	46 railroads	120,000 i.d. components	1 hour	120,000 hours
- Designated RR Officers in OMM. regarding PTC issues	46 railroads	92 designations	2 hours	184 hours
-236.1041 – PTC Training Programs	46 Railroads	46 programs	400 hours	18,400 hours
- 236.1043 - Task Analysis/Basic Requirements: Training Evaluations	46 railroads	46 evaluations	720 hours	33,120 hours
- Training Records	46 railroads	8,560 records	10 minutes	1,427 hours
- 236.1045 - Training Specific to Office Control Personnel	46 railroads	64 trained employees	20 hours	1,280 hours
- 236.1047 - Training Specific to Loc. Engineers & Other Operating Personnel				
- PTC Conductor Training	30 railroads	8,000 trained conductors	3 hours	24,000 hours

All estimates include the time for reviewing instructions; searching existing data sources; gathering or maintaining the needed data; and reviewing the information. For information or a copy of the paperwork package submitted to OMB, contact Mr. Robert Brogan at 202-493-6292 or Ms. Kimberly Toone at 202-493-6132 or via e-mail at the following addresses: robert.brogan@dot.gov; kimberly.toone@dot.gov.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to the Office of Management and Budget, Office of Information and Regulatory Affairs, Washington, D. C. 20503, Attention: FRA Desk Officer. Comments may also be sent via e-mail to the Office of Management and Budget at the following address: oira_submissions@omb.eop.gov <mailto:victor.angelo@fra.dot.gov>

OMB is required to make a decision concerning the collection of information requirements contained in this direct final rule between 30 and 60 days after publication of this document in the Federal Register. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication.

FRA cannot impose a penalty on persons for violating information collection requirements which do not display a current OMB control number, if required. FRA intends to obtain current OMB control numbers for any new information collection requirements resulting from this rulemaking action prior to the effective date of this final rule. The OMB control number, when assigned, will be announced by separate notice in the Federal Register.

D. Federalism Implications

This final rule has been analyzed in accordance with the principles and criteria contained in Executive Order 13132, “Federalism.” See 64 FR 43,255 (Aug. 4, 1999). As discussed earlier in the preamble, this final rule would provide regulatory relief from the mandated implementation of PTC systems.

Executive Order 13132 requires FRA to develop a process to ensure “meaningful and timely input by state and local officials in the development of regulatory policies that have federalism implications.” Policies that have “federalism implications” are defined in the Executive Order to include regulations that have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.” Under Executive Order 13132, the agency may not issue a regulation with federalism implications that imposes substantial direct compliance costs and that is not required by statute, unless the federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, or the agency consults with State and local government officials early in the process of developing the regulation. Where a regulation has federalism implications and preempts state law, the agency seeks to consult with State and local officials in the process of developing the regulation.

FRA has determined that this final rule would not have substantial direct effects on the States, on the relationship between the national government and the States, nor on the distribution of power and responsibilities among the various levels of government. In addition, FRA has determined that this final rule would not impose any direct compliance costs on State and local governments. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

However, this final rule will have preemptive effect. Section 20106 of Title 49 of the United States Code provides that States may not adopt or continue in effect any law, regulation, or order related to railroad safety or security that covers the subject matter of a regulation prescribed or order issued by the Secretary of Transportation (with respect to railroad safety matters) or the Secretary of Homeland Security (with respect to railroad security matters), except when the State law, regulation, or order qualifies under the local safety or security exception to § 20106. Furthermore, the Locomotive Boiler Inspection Act (49 U.S.C. 20701-20703) has been held by the U.S. Supreme Court to preempt the entire field of locomotive safety.

In sum, FRA has analyzed this final rule in accordance with the principles and criteria contained in Executive Order 13132. As explained above, FRA has determined that this final rule has no federalism implications, other than the possible preemption of State laws. Accordingly, FRA has determined that preparation of a federalism summary impact statement for this final rule is not required.

E. Environmental Impact

FRA has evaluated this final rule in accordance with its “Procedures for Considering Environmental Impacts” (“FRA’s Procedures”) (64 FR 28545, May 26, 1999) as required by the National Environmental Policy Act (42 U.S.C. 4321 et seq.), other environmental statutes,

Executive Orders, and related regulatory requirements. FRA has determined that this final rule is not a major FRA action (requiring the preparation of an environmental impact statement or environmental assessment) because it is categorically excluded from detailed environmental review pursuant to section 4(c)(20) of FRA's Procedures. In accordance with section 4(c) and (e) of FRA's Procedures, the agency has further concluded that no extraordinary circumstances exist with respect to this regulation that might trigger the need for a more detailed environmental review. As a result, FRA finds that this final rule is not a major Federal action significantly affecting the quality of the human environment.

F. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (Public Law 104-4, 2 U.S.C. 1531) (UMRA) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a federal mandate likely to result in the expenditures by state, local or tribal governments, in the aggregate, or by the private sector, of \$100 million (adjusted annually for inflation with base year of 1995) or more in any one year. The value equivalent of \$100 million in CY 1995, adjusted annual for inflation to CY 2008 levels by the Consumer Price Index for All Urban Consumers (CPI-U) is \$141.3 million. The assessment may be included in conjunction with other assessments, as it is in this rulemaking.

FRA is publishing this final rule to provide additional flexibility in standards for the development, testing, implementation, and use of PTC systems for railroads mandated by RSIA to implement PTC systems. The RIA provides a detailed analysis of the costs and benefits of the final rule. This analysis is the basis for determining that this rule will not result in total expenditures by State, local or tribal governments, in the aggregate, or by the private sector of

\$141.3 million or more in any one year. The costs associated with this final rule are reduced accident reduction from an existing rule.

G. Energy Impact

Executive Order 13211 requires federal agencies to prepare a Statement of Energy Effects for any “significant energy action.” 66 FR 28355 (May 22, 2001). Under the Executive Order, a “significant energy action” is defined as any action by an agency (normally published in the Federal Register) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) That is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. FRA has evaluated this final rule in accordance with Executive Order 13211. FRA has determined that this final rule is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Consequently, FRA has determined that this regulatory action is not a “significant regulatory action” within the meaning of Executive Order 13211.

H. Privacy Act

FRA wishes to inform all interested parties that anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document), if submitted on behalf of an association, business, labor union, etc.). Interested parties may also review DOT’s complete Privacy Act Statement in the Federal Register published on April 11, 2000 (65 FR 19477) or visit www.regulations.gov.

List of Subjects in 49 CFR Part 236

Penalties, Positive train control, Railroad safety, Reporting and recordkeeping requirements.

The Final Rule

In consideration of the foregoing, FRA hereby amends chapter II, subtitle B of title 49, Code of Federal Regulations as follows:

PART 236 – [AMENDED]

1. The authority citation for part 236 continues to read as follows:

Authority: 49 U.S.C. 20102-20103, 20107, 20133, 20141, 20157, 20301-20303, 20306, 21301-21302, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.49.

2. Amend § 236.1003 by adding the definition “PIH Materials” to paragraph (b) to read as follows:

§ 236.1003 Definitions.

* * * * *

(b) * * *

PIH Materials means materials poisonous by inhalation, as defined in §§ 171.8, 173.115, and 173.132 of this title.

* * * * *

3. Amend § 236.1005 by redesignating paragraph (b)(4)(ii) as paragraph (b)(4)(iii); revise paragraph (b)(4)(i) and add a new paragraph (b)(4)(ii) to read as follows:

§ 236.1005 Requirements for Positive Train Control systems.

* * * * *

(b) * * *

(4) * * *

(i) Routing changes. In a PTCIP or an RFA, a railroad may request review of the requirement to install PTC on a track segment where a PTC system is otherwise required by this section, but has not yet been installed, based upon changes in rail traffic such as reductions in total traffic volume to a level below 5 million gross tons annually, cessation of passenger service or the approval of an MTEA, or the cessation of PIH materials traffic. Any such request shall be accompanied by estimated traffic projections for the next 5 years (e.g., as a result of planned rerouting, coordinations, or location of new business on the line).

(ii) FRA will approve the exclusion requested pursuant to paragraph (b)(4)(i) of this section if the railroad establishes that, as of December 31, 2015:

(A) No passenger service will be present on the involved track segment or the passenger service will be subject to an MTEA approved in accordance with 49 CFR 236.1019; and

(B) No PIH traffic will be present on the involved track segment or the gross tonnage on the involved track segment will decline to below 5 million gross tons annually as computed

over a 2-year period.

* * * * *

§ 236.1020 [Removed and reserved]

4. Remove and reserve § 236.1020.

Issued in Washington, DC, on May 9, 2012 .

Joseph C. Szabo

Administrator

[FR Doc. 2012-11706 Filed 05/11/2012 at 8:45 am; Publication Date: 05/14/2012]